

# PUBLIC NOTICE

US Army Corps  
of Engineers  
New York District  
Jacob K. Javits Federal Building  
New York, N.Y. 10278-0090  
ATTN: Regulatory Branch

In replying refer to:  
Public Notice Number: **NAN-2009-00060**  
Issue Date: **May 11, 2009**  
Expiration Date: **June 9, 2009**

## To Whom It May Concern:

The New York District, Corps of Engineers has received an application for a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), and Section 404 of the Clean Water Act (33 U.S.C. 1344).

APPLICANT: New Jersey Transit Corporation  
2 Gateway Center, 17<sup>th</sup> Floor  
Newark, New Jersey 07102

ACTIVITY: Discharge fill material into waters of the United States and install, by directional drill, two new single track tunnels beneath the Hudson River to facilitate railroad improvements as part of the "Access to the Region's Core-Trans-Hudson Express Tunnel" project.

WATERWAY: Penhorn Creek, Hackensack River and Hudson River

LOCATION: Towns of Kearny, Secaucus, Jersey City, North Bergen and Union City, Hudson County, New Jersey, and New York City, New York.

A detailed description and plans of the applicant's activity are enclosed to assist in your review.

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

ALL COMMENTS REGARDING THE PERMIT APPLICATION MUST BE PREPARED IN WRITING AND MAILED TO REACH THIS OFFICE BEFORE THE EXPIRATION DATE OF THIS NOTICE, otherwise, it will be presumed that there are no objections to the activity.

Any person may request, in writing, before this public notice expires, that a public hearing be held to collect information necessary to consider this application. Requests for public hearings shall state, with particularity, the reasons why a public hearing should be held. It should be noted that information submitted by mail is considered just as carefully in the permit decision process and bears the same weight as that furnished at a public hearing.

Our preliminary determination is that the activity for which authorization is sought herein is not likely to affect any Federally endangered or threatened species or their critical habitat. However, pursuant to Section 7 of the Endangered Species Act (16 U.S.C. 1531), the District Engineer is consulting with the appropriate Federal agency to determine the presence of and potential impacts to listed species in the project area or their critical habitat.

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act (Public Law 104-267), requires all Federal agencies to consult with the National Oceanic and Atmospheric Administration Fisheries Service (NOAA/FS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH). Information regarding the proposed work that would be undertaken is given in the attached Description of Proposed Work. Based on a preliminary review of the proposal and the "Guide to Essential Fish Habitat Designations in the Northeastern United States", issued by the National Oceanic and Atmospheric Administration/National Marine Fisheries Service, the EFH for several aquatic species and their life stages in the proposed project area could potentially be impacted by the proposed work. Further consultation with the NOAA/FS regarding EFH impacts and conservation recommendations is being conducted and will be concluded prior to a final decision on the application.

Based upon a review of the latest published version of the National Register of Historic Places, there are several known sites eligible for, or included in, the Register within the permit area. In New Jersey these sites include: the New York Susquehanna and Western Railroad Historic District; the Old Main DL&W Railroad (Morris and Essex Line) Historic District; the Federal Carton Corporation/G&B Baker's Supply/Grand-City Container Corporation Building; the Substation 3 Building (Amtrak Substation 42); the Pennsylvania Railroad New York to Pennsylvania Historic District (NEC); Substation 4 (Amtrak Substation 41); the Delaware, Lackawanna & Western's Boonton Line (Main Line); and the Secaucus Potter's Field Cemetery. New York City sites include: the Nelson Tower and the Garment Center Historic District. The Federal Transit Administration (FTA, the lead NEPA federal agency), the Advisory Council on Historic Preservation, the New Jersey Transit Corporation, the New Jersey State Historic Preservation Officer and the New York State Historic Preservation Officer signed a Programmatic Agreement in October 2008 to govern the implementation of the proposed Access to the Region's Core-Trans-Hudson Express Tunnel project and satisfy FTA's compliance with Section 106 of the National Historic Preservation Act. Presently unknown archeological, scientific, prehistorical, or historical data may be lost by work accomplished under the required permit.

Reviews of activities pursuant to Section 404 of the Clean Water Act will include application of the guidelines promulgated by the Administrator, U.S. Environmental Protection Agency, under authority of Section 404 (b) of the Clean Water Act and the applicant will obtain a water quality certificate or waiver from the appropriate state agency in accordance with Section 401 of the Clean Water Act prior to a permit decision.

Pursuant to Section 307 (c) of the Coastal Zone Management Act of 1972 as amended [16 U.S.C. 1456 (c)], for activities under consideration that are located within the coastal zone of a state which has a federally approved coastal zone management program, the applicant has certified in the permit application that the activity complies with, and will be conducted in a manner that is consistent with, the approved state coastal zone management program. By this public notice, we are requesting the state's concurrence with, objection to, or waiver of the applicant's certification. No permit decision will be made until one of these actions occurs. For activities within the coastal zone of New Jersey State, the applicant's certification and accompanying information is available from the New Jersey Department of Environmental Protection, Coastal Management Program, P.O. Box 418, 401 E. State Street, Trenton, NJ, 08625, Telephone (609) 633-2201. For activities within the coastal zone of New York State, the applicant's certification and accompanying information is available from the Consistency Coordinator, New York State Department of State, Division of Coastal

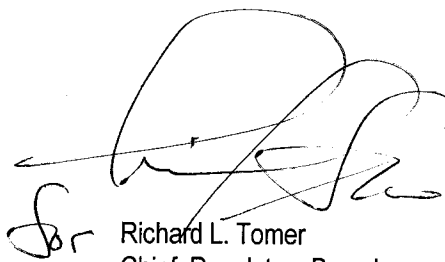
Resources and Waterfront Revitalization, Coastal Zone Management Program, One Commerce Plaza, 99 Washington Avenue, Albany, New York 12231, Telephone (518) 474-6000. Comments regarding the applicant's certification, and copies of any letters to this office commenting upon this proposal, should be so addressed.

In addition to any required water quality certificate and coastal zone management program concurrence, the applicant has obtained or requested the following governmental authorization for the activity under consideration:

- New Jersey Department of Environmental Protection Waterfront Development Permit
- New York State Department of Environmental Conservation Article 15 and 25 Permit
- New York City Department of City Planning

It is requested that you communicate the foregoing information concerning the activity to any persons known by you to be interested and who did not receive a copy of this notice. If you have any questions concerning this application, you may contact this office at (917) 790-8412 and ask for James Cannon.

For more information on New York District Corps of Engineers programs, visit our website at <http://www.nan.usace.army.mil>



Richard L. Tomer  
Chief, Regulatory Branch

Enclosures

## WORK DESCRIPTION

The permit applicant, the New Jersey Transit Corporation (NJT), has requested Department of the Army authorization to perform U.S. Army Corps of Engineers-regulated work as part of the construction of their Federally-funded passenger railroad improvement project known as the "Access to the Region's Core – Trans-Hudson Express Tunnel" project. It is more commonly known as the ARC project. The nine-mile-long ARC railroad improvement project would pass through the Towns of Kearny, Secaucus, Jersey City, North Bergen and Union City, Hudson County, New Jersey, and through a new pair of railroad tunnels under the Hudson River into Manhattan and then into a new station facility for the existing Penn Station in New York.

The stated purpose and need for this passenger railroad improvement project is to increase capacity of the trans-Hudson commuter rail system, which is currently at capacity during peak travel periods; provide transfer free service to Midtown Manhattan from areas not served today; provide a new station facility to relieve severely overcrowded and inadequate conditions at Penn Station New York; reduce commuter rail delays; and enhance commuter rail system safety and security.

The United States Department of Transportation's (USDOT) Federal Transit Administration (FTA) completed its National Environmental Policy Act (NEPA) review process pursuant to Title 23 of the Code of Federal Regulations (CFR) Part 771 and Title 40 of the Code of Federal Regulations (CFR) Part 1500-1508 on 16 January 2009 by signing a Record of Decision which may be reviewed at: <http://www.arctunnel.com/library/> and, the issuance of Final Environmental Impact Statement which may be reviewed at: <http://www.arctunnel.com/library/>

The U.S. Army Corps of Engineers' regulated construction work within the ARC project consists of two major elements.

The first regulated construction element consists of two new 7,400-linear foot single-track rail tunnels under the Hudson River between Hoboken, New Jersey and Twelfth Avenue and West 34<sup>th</sup> Street to Penn Station – New York in Manhattan, New York. The two new 25-foot-diameter tunnels would be bored /drilled through the existing bedrock beneath the Hudson River and would be below the river's existing authorized, built, and maintained forty-five-foot-deep Federal Navigation Channel as measured from the Datum of Mean Low Water. Return flow from the dewatered drill cuttings would be discharged to the Hudson River. The top of each new tunnel would be at minimum fifty feet below this forty-five-foot-deep Federal Navigation Channel. All of the tunnels' construction work would occur in the dry outside of the rivers waters.

The second regulated construction element consists of the permanent filling approximately 17.5 acres of regulated open waters and wetlands to create additional dry land and shading approximately 0.11 acres along the seven miles of existing railroad right-of-way from the new Hudson River tunnels westward into New Jersey to the new Kearny rail yard. Of this regulated 17.61 acres, approximately 3.16 acres are regulated open waters and approximately 14.45 acres are regulated wetlands. The 3.16 acres of regulated open waters are distributed among eleven specific fill sites ranging in size from 0.001 acre to 2 acres. The approximately 14.45 acres of regulated wetlands are distributed among fourteen specific fill sites ranging in size from 0.002 acre to 5.035 acres.

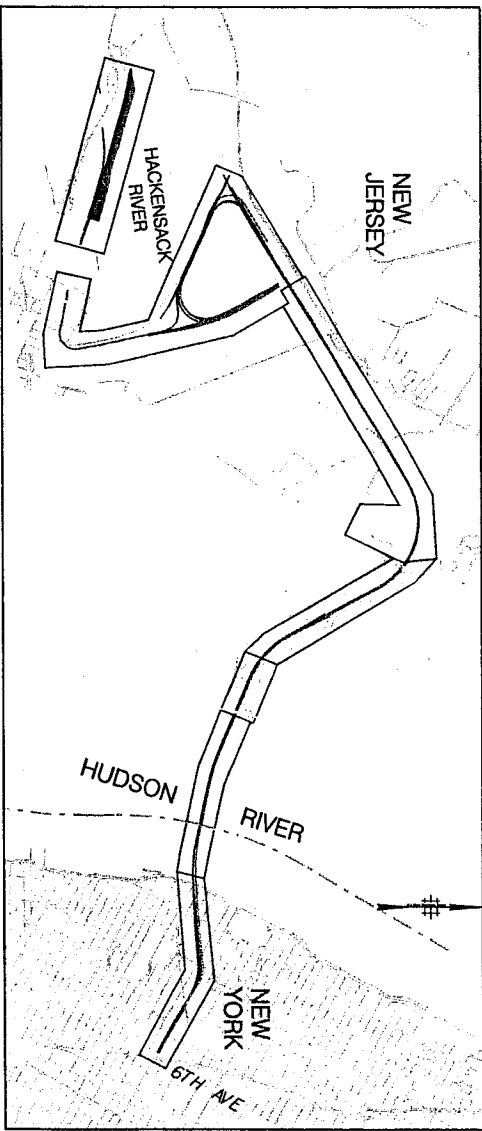
The permit applicant, the New Jersey Transit Corporation, reports that they will provide mitigation for these losses by buying mitigation credits at the yet-to-be-approved Richard P. Kane Tract Wetland Mitigation Bank being developed under the direction of the Meadowlands Conservation Trust in the Borough of Carlstadt, Bergen County, New Jersey; or at the Oritani Marsh in the Borough of East Rutherford, New Jersey. Based upon recent permit decisions in the area, expected ratios of required mitigation area to area of permitted loss include a minimum 2:1 for construction of new wetlands as mitigation, 3:1 for wetlands enhancement work in existing wetlands, and 27:1 for deed—restricted preservation of existing wetlands.

In the United States Department of Transportation's (USDOT) Federal Transit Administration (FTA) Record of Decision approving the ARC project, one of the required mitigation measures listed in Attachment B of the Record of Decision is for New Jersey Transit Corporation to produce a US Army Corps of Engineers and New Jersey Department of Environmental Protection approved wetlands and open water mitigation plan, and execute the mitigation plan prior to or concurrently with the ARC project's construction. Further, as stated in the Record of Decision, the aquatic mitigation work will also compensate for the non-regulated permanent filling of two isolated open water areas totaling 0.281 and eleven isolated wetland areas ranging in size from 0.033 acre to 0.534 acre totaling 1.424 acre. This results in a total of 19.32 acres of permanent filling of the aquatic environment to be mitigated for by the New Jersey Transit Corporation.

DEPARTMENT OF THE ARMY  
SECTIONS 10 AND 404 PERMIT APPLICATION DRAWINGS  
HUDSON COUNTY, NEW JERSEY  
NEW YORK COUNTY, NEW YORK

PREPARED FOR:

**ACCESS TO THE REGION'S CORE**  
Trans-Hudson Express (THE) Tunnel  
A Partnership of NJ TRANSIT and the Port Authority of NY and NJ



**THE PARTNERSHIP**  
A JOINT VENTURE OF:  
NJ TRANSIT AND THE PORT AUTHORITY

DANIEL HARRIS / ARCOM  
CERTIFICATE OF AUTHORIZATION No. 24G027988000  
*Robert J. Schwade*  
Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 24G03440500  
Date: 3-31-09

USACE SECTION 10/404 PERMIT  
TITLE SHEET

SCALE  
DATE: MARCH, 2009  
DRAWING NO.: GEN-TT-1  
Figure 1 of 31

**DRAWING NO.**

**DRAWING TITLE**

GEN-TT-1  
GEN-IN-1  
GEN-CN-1  
GEN-KP-1

TITLE SHEET  
INDEX SHEET  
GENERAL NOTES  
GENERAL KEY PLAN

LOO-PL-1 LOOP TRACKS - SHEET 1  
LOO-PL-2 LOOP TRACKS - SHEET 2  
LOO-PL-3 LOOP TRACKS - SHEET 3  
LOO-PL-4 LOOP TRACKS - SHEET 4  
LOO-PL-5 LOOP TRACKS - SHEET 5  
LOO-PL-6 LOOP TRACKS - SHEET 6  
LOO-PL-7 LOOP TRACKS - SHEET 7  
LOO-PL-8 LOOP TRACKS - SHEET 8  
LOO-PL-9 LOOP TRACKS - SHEET 9  
LOO-PL-10 LOOP TRACKS - SHEET 10  
LOO-SC-1 LOOP TRACKS - CROSS SECTIONS - SHEET 1  
LOO-SC-2 LOOP TRACKS - CROSS SECTION - SHEET 2

POR-PL-1 NU SURFACE ALIGNMENTS - SHEET 1  
POR-PL-2 NU SURFACE ALIGNMENTS - SHEET 2  
POR-PL-3 NU SURFACE ALIGNMENTS - SHEET 3  
POR-PL-4 NU SURFACE ALIGNMENTS - SHEET 4  
POR-PL-5 NU SURFACE ALIGNMENTS - SHEET 5  
POR-PL-6 NU SURFACE ALIGNMENTS - SHEET 6  
POR-SC-1 NU SURFACE ALIGNMENTS - CROSS SECTIONS - SHEET 1  
POR-SC-2 NU SURFACE ALIGNMENTS - CROSS SECTIONS - SHEET 2  
BRIDGE CROSSING NYS&W AND CONRAIL TRACKS - PLAN & PROFILE

KEARNY YARD - GENERAL PLAN  
KEARNY YARD - GRADING AND DRAINAGE - TREATMENT BASIN TYPICAL SECTIONS

PALISADES TUNNELS - GENERAL PLAN & PROFILE

HUDSON RIVER TUNNELS - GENERAL PLAN & PROFILE  
HUDSON RIVER TUNNELS - HOBOKEN SHAFT

MANHATTAN TUNNELS - GENERAL PLAN AND PROFILE



**ACCESS TO THE REGION'S CORE**  
Trans-Hudson Express (THE) Tunnel  
A Partnership of NJ TRANSIT and the Port Authority of NY and NJ



A JOINT VENTURE OF  
THE PARTNERSHIP

DANIEL HARRIS / ARCOX  
CERTIFICATE OF AUTHORIZATION NO. 246A2798600

*Robert J. Schwade*  
Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 24603480590  
Date: 3-31-09

USACE SECTION 10/404 PERMIT

INDEX SHEET

Figure 2 of 31

SCALE:

DATE:

MARCH, 2009

DRAWING NO.:

GEN-IN-1

**GENERAL**

1. PLAN DIMENSIONS ARE MEASURED IN A TRUE HORIZONTAL PLANE, UNLESS NOTED OTHERWISE. VERTICAL DIMENSIONS ARE MEASURED IN A TRUE VERTICAL PLANE, UNLESS NOTED OTHERWISE.
2. ALL DESIGN FOR THE PROJECT, EXCEPT AS DIRECTED BY NJ TRANSIT, SHALL BE IN ACCORDANCE WITH PROJECT DESIGN CRITERIA AND PROJECT SPECIFICATIONS.
3. CONSTRUCTION ACTIVITIES SHALL BE CONFINED WITHIN THE RIGHT-OF-WAY PROVIDED AND AREAS DESIGNATED FOR CONSTRUCTION STAGING.
4. THE DESIGN SHALL FOLLOW ALL FEDERAL, STATE, AND LOCAL ORDINANCES APPLICABLE TO THE REMOVAL, DISPOSAL AND TRANSPORT OF ALL EXCAVATED MATERIAL.

**ALIGNMENT**

1. ALL STATIONS ON THE DRAWINGS ARE IN FEET AND ARE MEASURED ALONG THE TRACK CENTERLINES.
2. GRADIENTS ARE IN PERCENT, UNLESS NOTED OTHERWISE.

**RIGHT OF WAY**

1. REPUTED OWNER, TAX BLOCK NUMBERS, LOT NUMBER, LOT SIZE AND PARCEL AREA INFORMATION INDICATED ON THE PLANS WERE OBTAINED FROM AVAILABLE DEED INFORMATION AND TAX MAPS.
2. ALL PROPOSED FEE ACQUISITIONS, PERMANENT EASEMENTS AND TEMPORARY CONSTRUCTION EASEMENTS WILL BE OBTAINED BY NJ TRANSIT PRIOR TO START OF CONSTRUCTION.

WETLAND NO.	WETLANDS (ACRES)			OPEN WATER (ACRES)		
	PERMANENT FILED AREA	PERMANENT SHADED AREA	TEMPORARY IMPACT AREA	PERMANENT FILED AREA	PERMANENT SHADED AREA	TEMPORARY IMPACT AREA
INTERIDAL AAA	-	-	0.155	-	-	-
PALUSTRINE AB	1.058	0.019	0.394	0.020	0.006	0.007
PALUSTRINE AE	-	-	0.008	-	-	-
PALUSTRINE AH	-	-	0.006	-	-	-
PALUSTRINE AK	0.084	-	0.122	0.002	-	-
PALUSTRINE AL	0.621	-	0.260	0.350	-	0.109
PALUSTRINE AR/AT	5.035	-	1.125	2.000	-	0.565
PALUSTRINE AZ	-	-	-	-	0.008	-
PALUSTRINE AZZ	-	-	0.017	-	-	-
PALUSTRINE EE	0.421	-	0.123	0.085	-	0.080
PALUSTRINE JG	0.083	-	0.048	-	-	-
PALUSTRINE M	0.187	0.026	0.245	0.001	-	0.069
PALUSTRINE NO	1.130	-	0.247	0.404	-	0.356
INTERIDAL PS	3.702	-	0.857	0.265	-	0.080
PALUSTRINE UT	0.037	-	0.048	-	-	-
PALUSTRINE WAG/WAF	0.130	0.044	0.099	-	-	-
PALUSTRINE X	1.266	-	0.555	-	-	0.003
PALUSTRINE Y	0.138	-	0.134	-	-	0.020
PALUSTRINE Z	0.468	0.002	0.302	0.001	0.010	0.031
KEARNY OUTFALLS	-	-	-	0.012	-	0.044
TOTALS	14.360	0.091	4.745	3.140	0.024	1.364

DAVID HARRIS | ABCOM  
 CERTIFICATE OF AUTHORIZATION NO. 246A27986000

*Robert J. Schwade*  
 Robert J. Schwade  
 NEW JERSEY PROFESSIONAL ENGINEER  
 LICENSE NO. 245014600  
 Date: 3-31-09

USACE SECTION 10/404 PERMIT

GENERAL NOTES

Figure 3 of 31

SCALE  
 NO SCALE

DATE  
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 DRAWING NO.

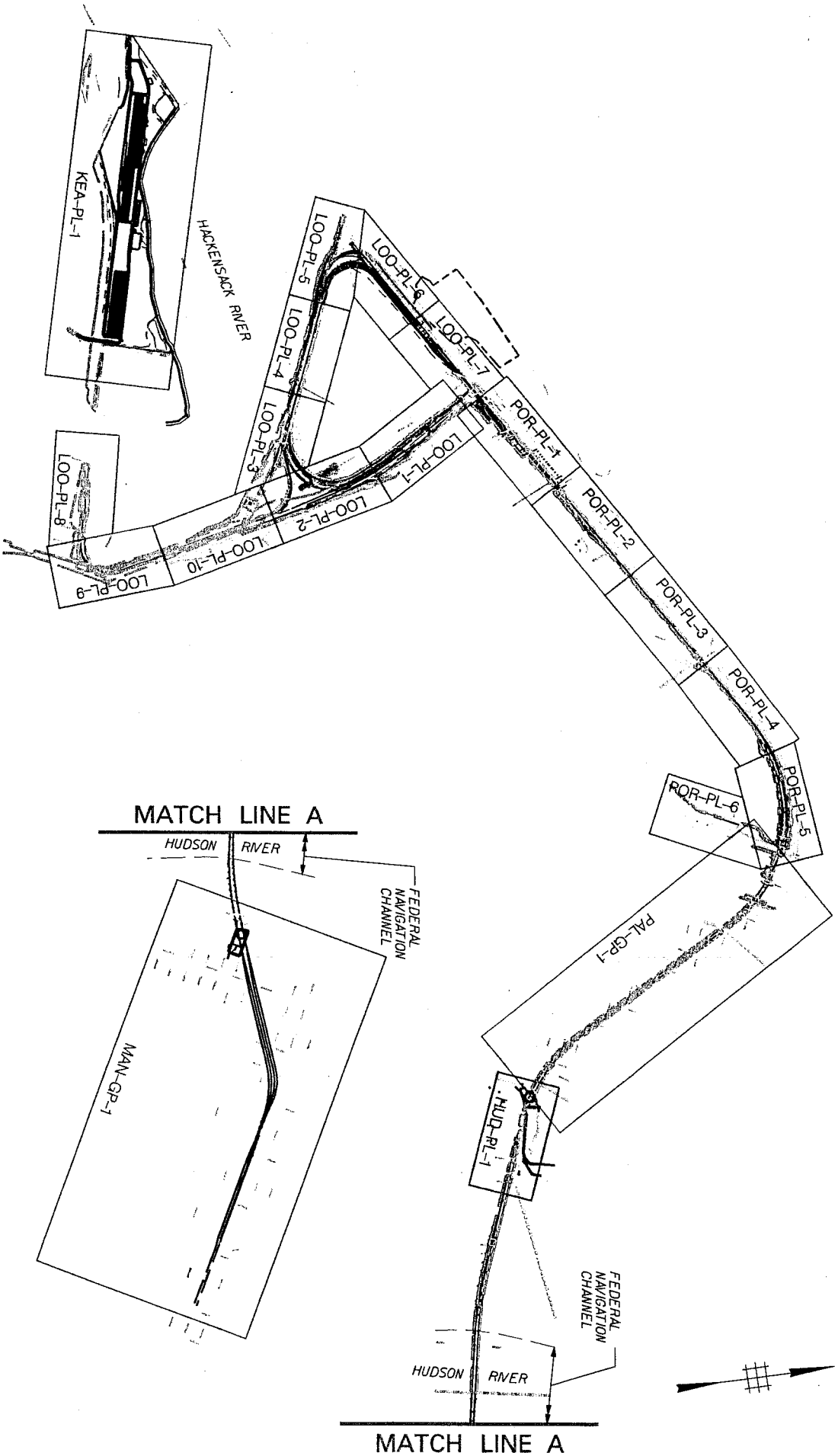
GEN-GN-1



Trans-Hudson Express (THE) Tunnel  
 A Partnership of NJ TRANSIT and the Port Authority of NY and NJ

**THE PARTNERSHIP**  
 A JOINT VENTURE OF  
 THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY  
 AND NJ TRANSIT





**THE PARTNERSHIP**

DMJM HARRIS / AECOM  
 CERTIFICATE OF AUTHORIZATION NO. 246A27986000

USACE SECTION 10/404 PERMIT  
 GENERAL KEY PLAN

SCALE: NONE  
 DATE: MARCH, 2009  
 DRAWING NO.: GEN-KP-1



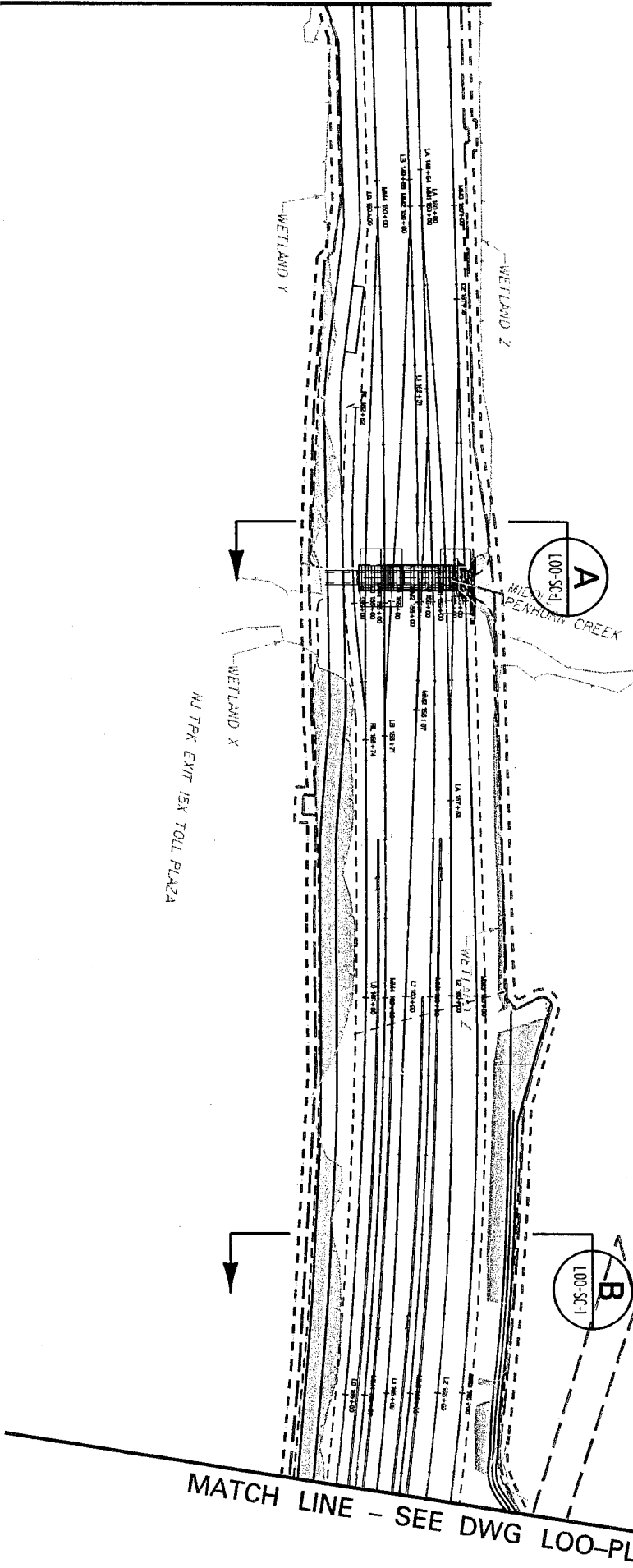
A JOINT VENTURE OF:  
 IN AMERICA, INC. / NY & NJ TRANSIT

*Robert J. Schwade*  
 Robert J. Schwade  
 NEW JERSEY PROFESSIONAL ENGINEER  
 LICENSE NO. 2103918230

DATE: 3-31-09

Figure 4 of 31

MATCH LINE - SEE DWG LOO-PL-7

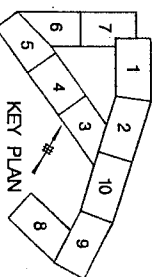


MATCH LINE - SEE DWG LOO-PL-2

# LEGEND

- PERMANENT WETLANDS
- TEMPORARY WETLANDS
- SHADED WETLANDS
- PERMANENT OPEN WATERS
- TEMPORARY OPEN WATERS
- SHADED OPEN WATER

- LIMITS OF FILL
- TEMPORARY CONSTRUCTION EASEMENT



SCALE:

1" = 200'

DATE: MARCH, 2009

DRAWING NO.:



DAVID HARRIS, AECOM  
CERTIFICATE OF AUTHORIZATION NO. 246A27966000

*Robert J. Schwade*  
Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 246B03400500

USACE SECTION 10404 PERMIT

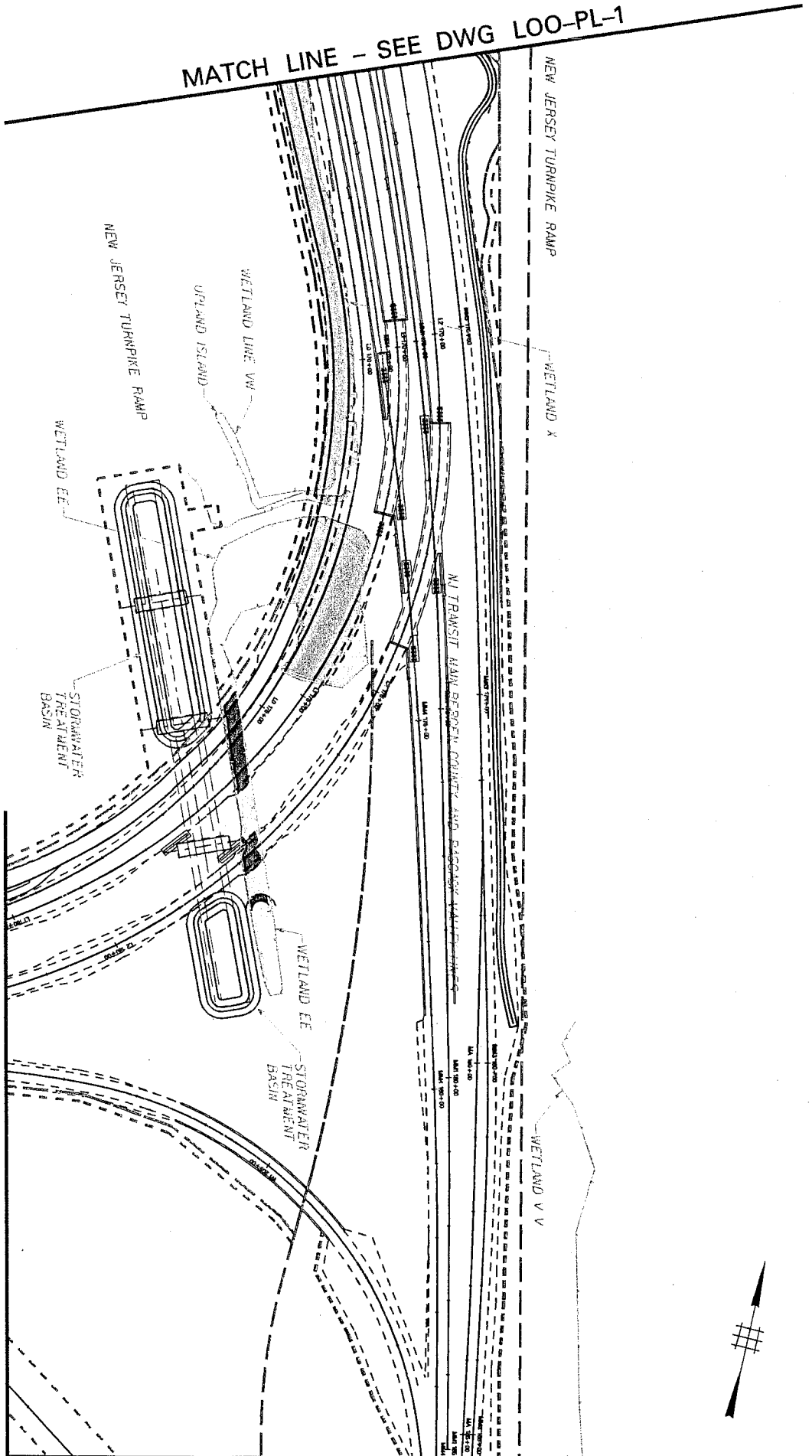
LOOP TRACKS

SHEET 1

FIGURE 5 of 31

LOO-PL-1

MATCH LINE - SEE DWG LOO-PL-1

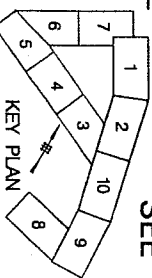


# LEGEND

PERMANENT WETLANDS  
TEMPORARY WETLANDS  
SHADED WETLANDS

PERMANENT OPEN WATERS  
TEMPORARY OPEN WATERS  
SHADED OPEN WATER

LIMITS OF FILL  
TEMPORARY CONSTRUCTION EASEMENT



SCALE IN FEET  
100' 50' 0' 100' 200'

SCALE:

1" = 200'

DATE: MARCH, 2009

DRAWING NO.:



ACCESS TO THE REGION'S CORE  
Trans-Hudson Express (THE) Tunnel  
A Partnership of NJ TRANSIT and the Port Authority of NY & NJ

THE PARTNERSHIP  
A PARTNERSHIP OF  
NJ TRANSIT AND THE  
PORT AUTHORITY OF NY & NJ

DMAN HARRIS / ARCOM  
CERTIFICATE OF AUTHORIZATION NO. 24042796600

*Robert J. Schwade*  
Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 240603480500

USACE SECTION 10/404 PERMIT

LOOP TRACKS

SHEET 2

LOO-PL-2

Revised 4/8/09



SCALE IN FEET

100' 50' 0 100' 200

**SCALE:**

 $T^{\circ} = 200^{\circ}$ 

USACE SECTION 10/404 PERMIT

SHEET 3

LOO-PL-3

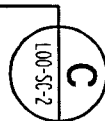
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MATCH LINE - SEE DWG LOO-PL-3

HACKENSACK RIVER

WETLAND P5

WETLAND P5



WETLAND M

WETLAND NO

WETLAND NO

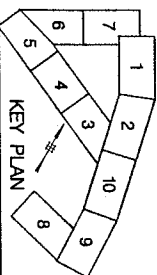
MATCH LINE - SEE DWG LOO-PL-5

# LEGEND

PERMANENT WETLANDS  
TEMPORARY WETLANDS  
SHADED WETLANDS

PERMANENT OPEN WATERS  
TEMPORARY OPEN WATERS  
SHADED OPEN WATER

LIMITS OF FILL  
TEMPORARY CONSTRUCTION EASEMENT



SCALE IN FEET  
100' 50' 0' 100' 200'

SCALE:

1" = 200'

DATE: MARCH, 2009

DRAWING NO.:

LOO-PL-4



ACCESS TO THE REGION'S CORE  
Trans-Hudson Express (THE) Tunnel  
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THE PARTNERSHIP  
NJ TRANSIT and the Port Authority of NY and NJ

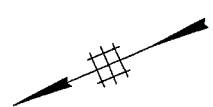
DRAWN BY: JACQUELINE  
CERTIFICATE OF AUTHORIZATION NO. 24642796000

Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 246203480000  
Date: 3-31-09

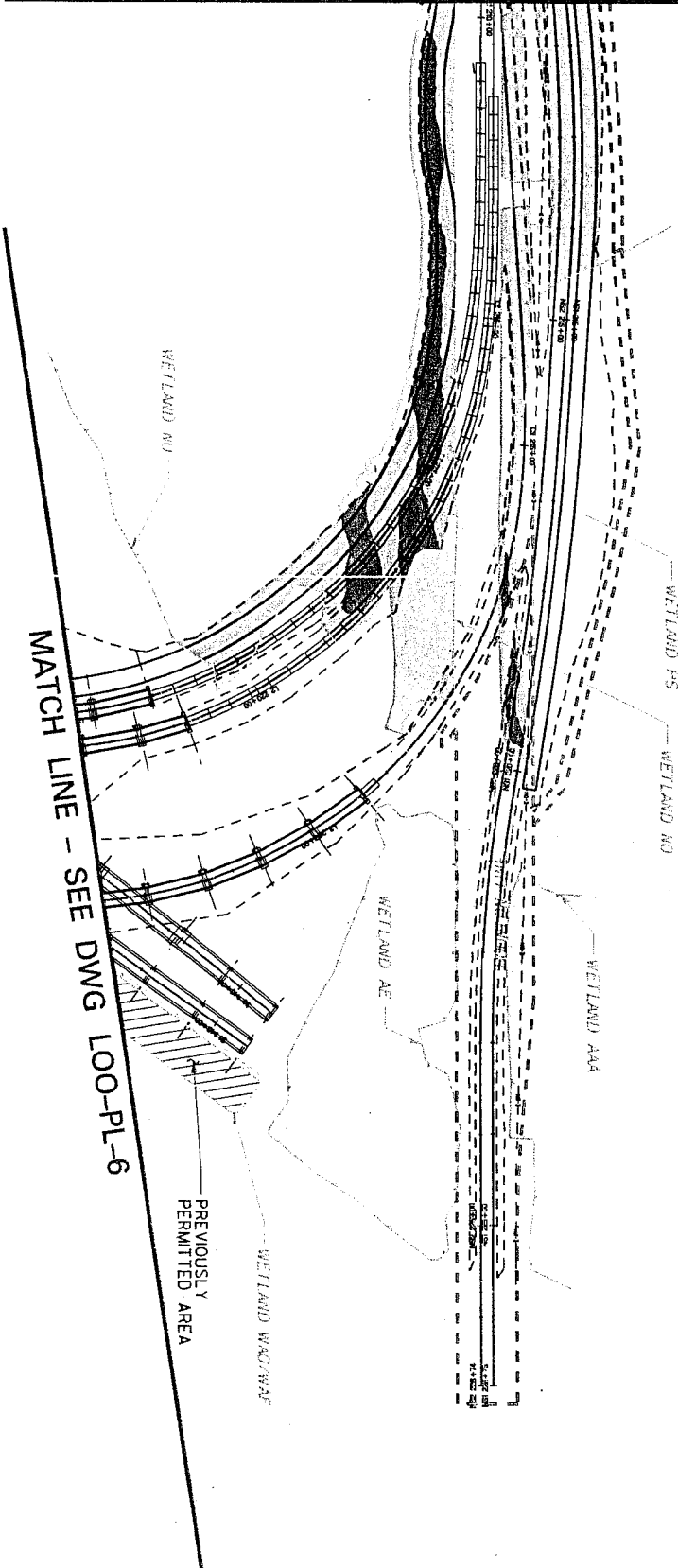
USACE SECTION 10404 PERMIT

LOOP TRACKS

SHEET 4 Figure 8 of 31



MATCH LINE - SEE DWG LOO-PL-4

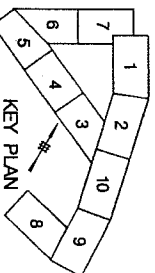


**LEGEND**

PERMANENT WETLANDS  
TEMPORARY WETLANDS  
SHADED WETLANDS

PERMANENT OPEN WATERS  
TEMPORARY OPEN WATERS  
SHADED OPEN WATER

LIMITS OF FILL  
TEMPORARY CONSTRUCTION EASEMENT



SCALE IN FEET  
100' 50' 0' 100' 200'

DAVID HARRIS, AECOM  
CERTIFICATE OF AUTHORIZATION No. 246A2796000

Date: 3-31-09

Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 2403248000

USACE SECTION 10404 PERMIT

LOOP TRACKS

SHEET 5

Figure 9 of 31

LOO-PL-5

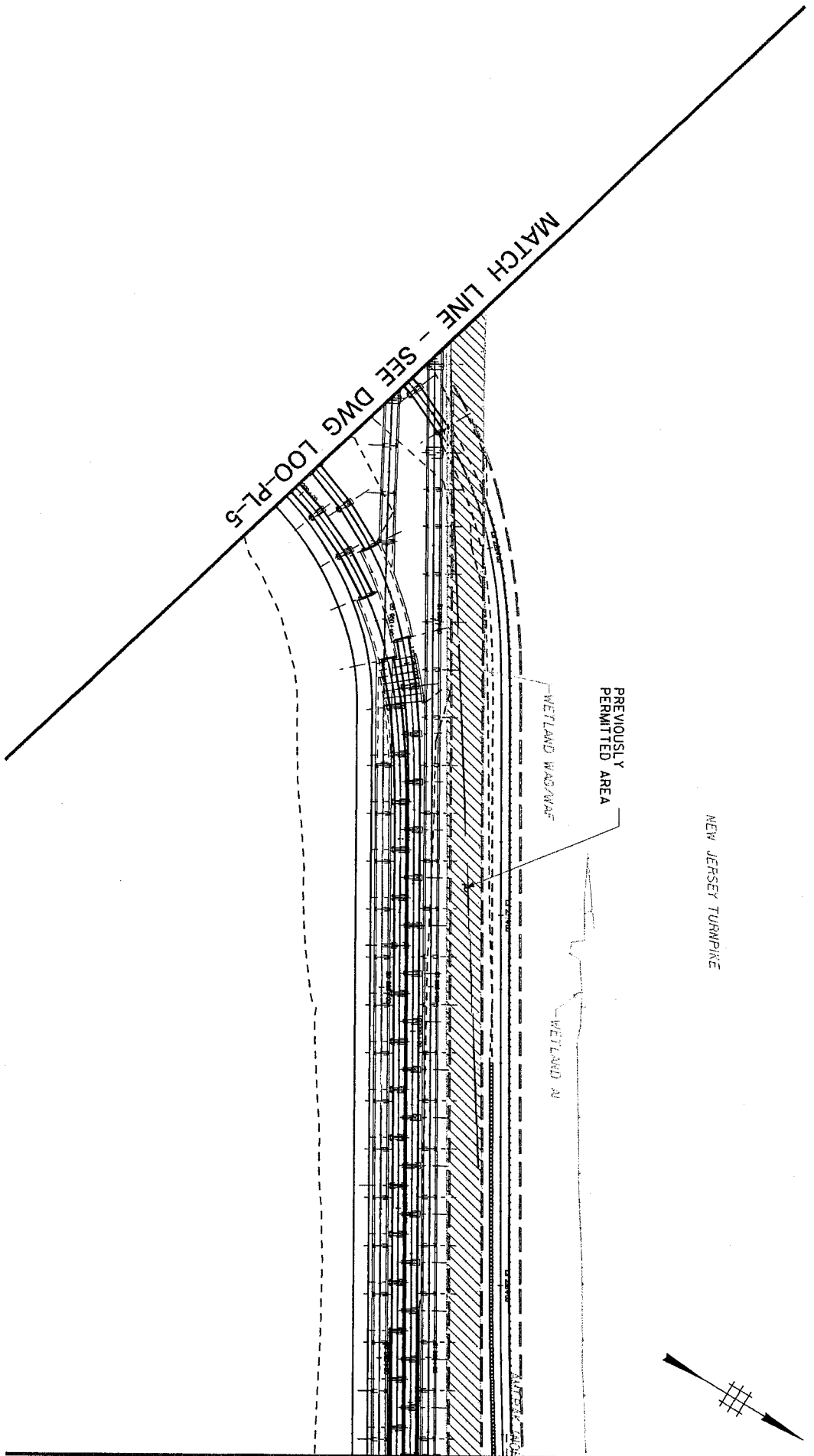
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DATE: MARCH, 2009  
DRAWING NO.:



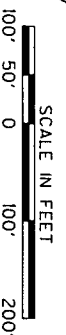
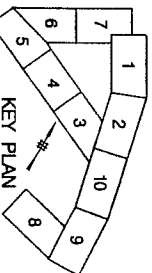
ACCESS TO THE REGION'S CORE  
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THE PARTNERSHIP  
A JOINT VENTURE OF  
NJ TRANSIT AND THE PORT AUTHORITY OF NY AND NJ



- LEGEND**
- PERMANENT WETLANDS
  - TEMPORARY WETLANDS
  - SHADED WETLANDS
  - PERMANENT OPEN WATERS
  - TEMPORARY OPEN WATERS
  - SHADED OPEN WATER

--- LIMITS OF FILL  
--- TEMPORARY CONSTRUCTION EASEMENT



DAVID HARRIS, AECOM  
CERTIFICATE OF AUTHORIZATION No. 246A2798600

*Robert J. Schwade*  
Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 246B048000

USACE SECTION 10404 PERMIT

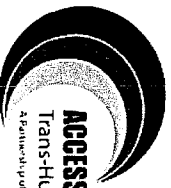
LOOP TRACKS

SHEET 6

FIGURE 10 OF 31

LOO-PL-6

SCALE: 1" = 200'  
DATE: MARCH, 2009  
DRAWING NO.:



**ACCESS TO THE REGION'S CORE**  
Trans-Hudson Express (THE) Tunnel  
A Partnership of NJ TRANSIT and the Port Authority of NY & NJ

**THE PARTNERSHIP**  
A JOINT VENTURE OF  
NJ TRANSIT AND THE PORT AUTHORITY OF NY & NJ

MATCH LINE - SEE DWG LOO-PL-6

MATCH LINE - SEE DWG LOO-PL-1

MATCH LINE - SEE DWG POR-PL-1

NEW JERSEY TURNPIKE

PREVIOUSLY  
PERMITTED AREA

WETLAND WAG/WAF

WETLAND AJ

FRANK R. LAUTENBERG  
STATION

WETLAND AJ

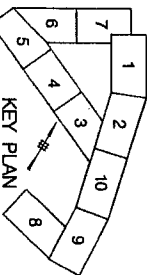
WETLAND AJ

WETLAND Y

**LEGEND**

-  PERMANENT WETLANDS
-  TEMPORARY WETLANDS
-  SHADED WETLANDS
-  PERMANENT OPEN WATERS
-  TEMPORARY OPEN WATERS
-  SHADED OPEN WATER

--- LIMITS OF FILL  
--- TEMPORARY CONSTRUCTION EASEMENT



SCALE IN FEET  
100' 50' 0' 100' 200'

DAVID HARRIS, ARCON  
CERTIFICATE OF AUTHORIZATION No. 246A2798600

*Robert J. Schwade*  
Date: 3-31-09  
Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 2461046000

USACE SECTION 10404 PERMIT

LOOP TRACKS

SHEET 7 of 31

LOO-PL-7

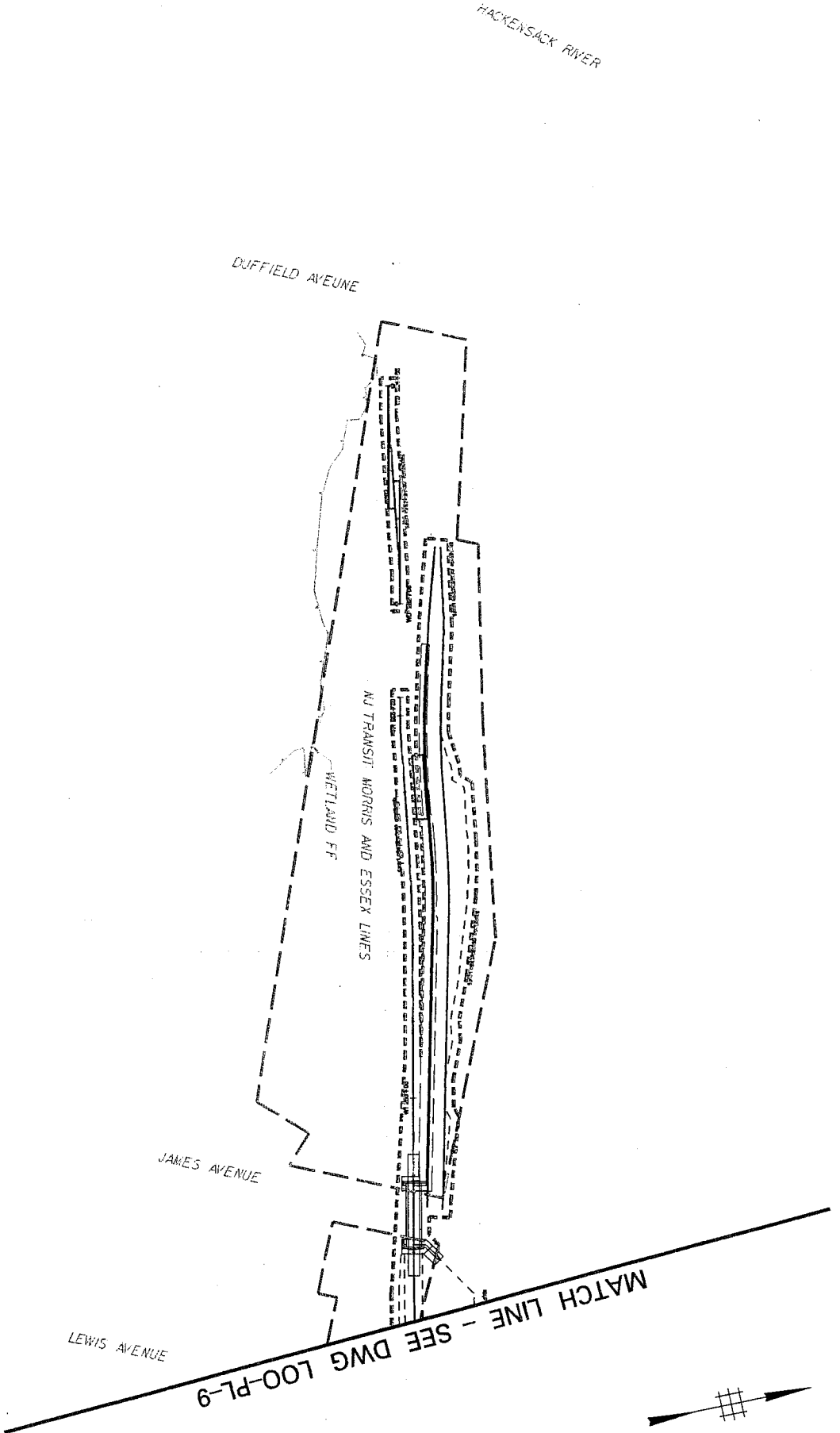
SCALE: 1" = 200'

DATE: MARCH, 2009  
DRAWING NO.:



**THE PARTNERSHIP**  
A JOINT VENTURE OF  
TRANSPORTATION, INFRASTRUCTURE & REAL ESTATE



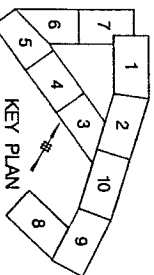


# LEGEND

PERMANENT WETLANDS  
TEMPORARY WETLANDS  
SHADED WETLANDS

PERMANENT OPEN WATERS  
TEMPORARY OPEN WATERS  
SHADED OPEN WATER

LIMITS OF FILL  
TEMPORARY CONSTRUCTION EASEMENT



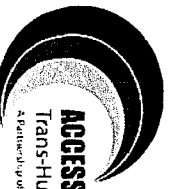
SCALE IN FEET  
100' 50' 0' 100' 200'

SCALE:

1" = 200'

DATE: MARCH, 2009

DRAWING NO. 4



ACCESS TO THE REGION'S CORE  
Trans-Hudson Express (THE) Tunnel  
A Partnership of NJ TRANSIT and New York Authority of Transportation

THE PARTNERSHIP  
JOINT VENTURE OF  
NJ TRANSIT AND NYCTA

DAVID HARRIS, JACCOM  
CERTIFICATE OF AUTHORIZATION NO. 24042798000

Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 24030400900  
Date: 3-31-09

USACE SECTION 10404 PERMIT

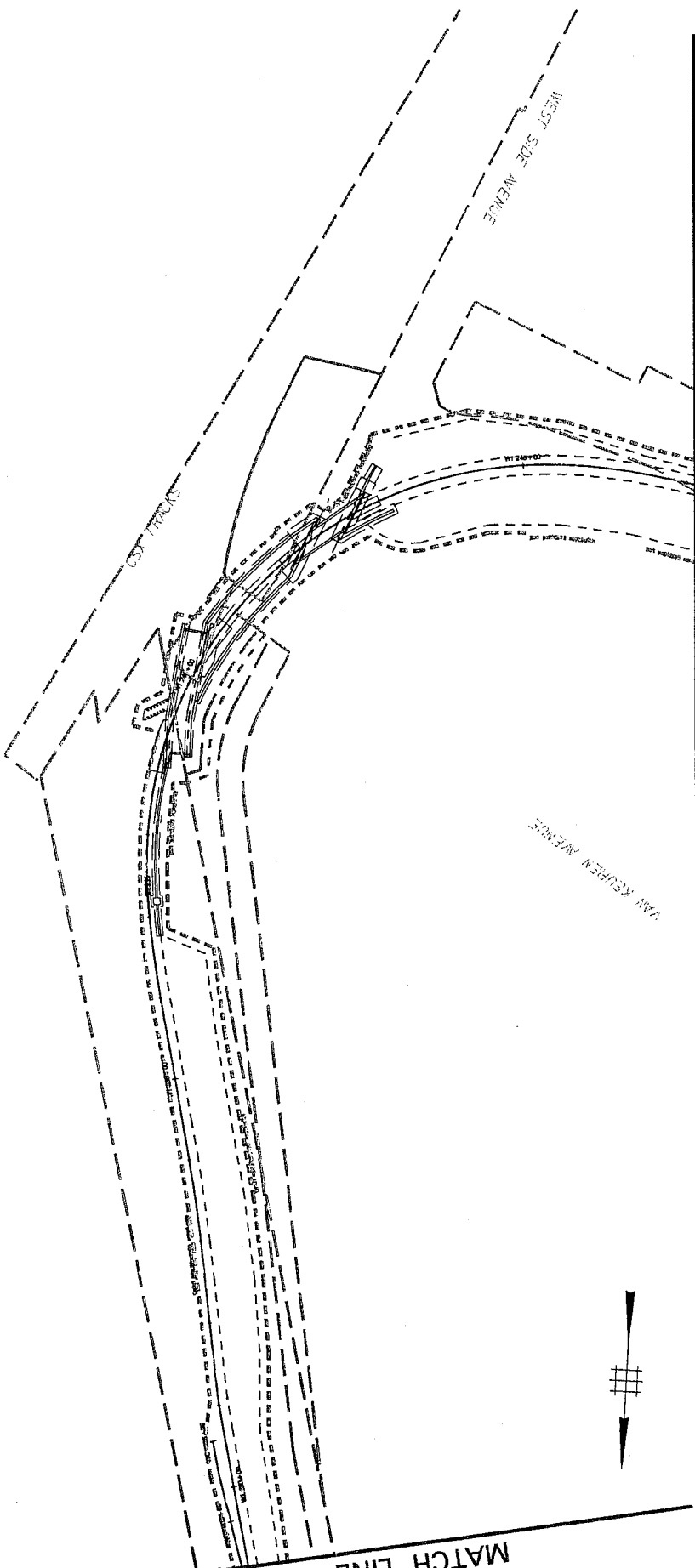
LOOP TRACKS

SHEET 8

FROM 12 OF 31

L00-PL-8

MATCH LINE - SEE DWG 100-PL-8

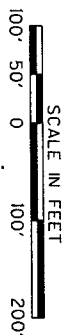
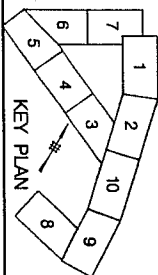


MATCH LINE - SEE DWG 100-PL-10

**LEGEND**

- PERMANENT WETLANDS
- TEMPORARY WETLANDS
- SHADED WETLANDS
- PERMANENT OPEN WATERS
- TEMPORARY OPEN WATERS
- SHADED OPEN WATER

- LIMITS OF FILL
- TEMPORARY CONSTRUCTION EASEMENT



SCALE:

1" = 200'

DATE: MARCH, 2009

DRAWING NO. J

100-PL-9

USACE SECTION 10404 PERMIT

LOOP TRACKS

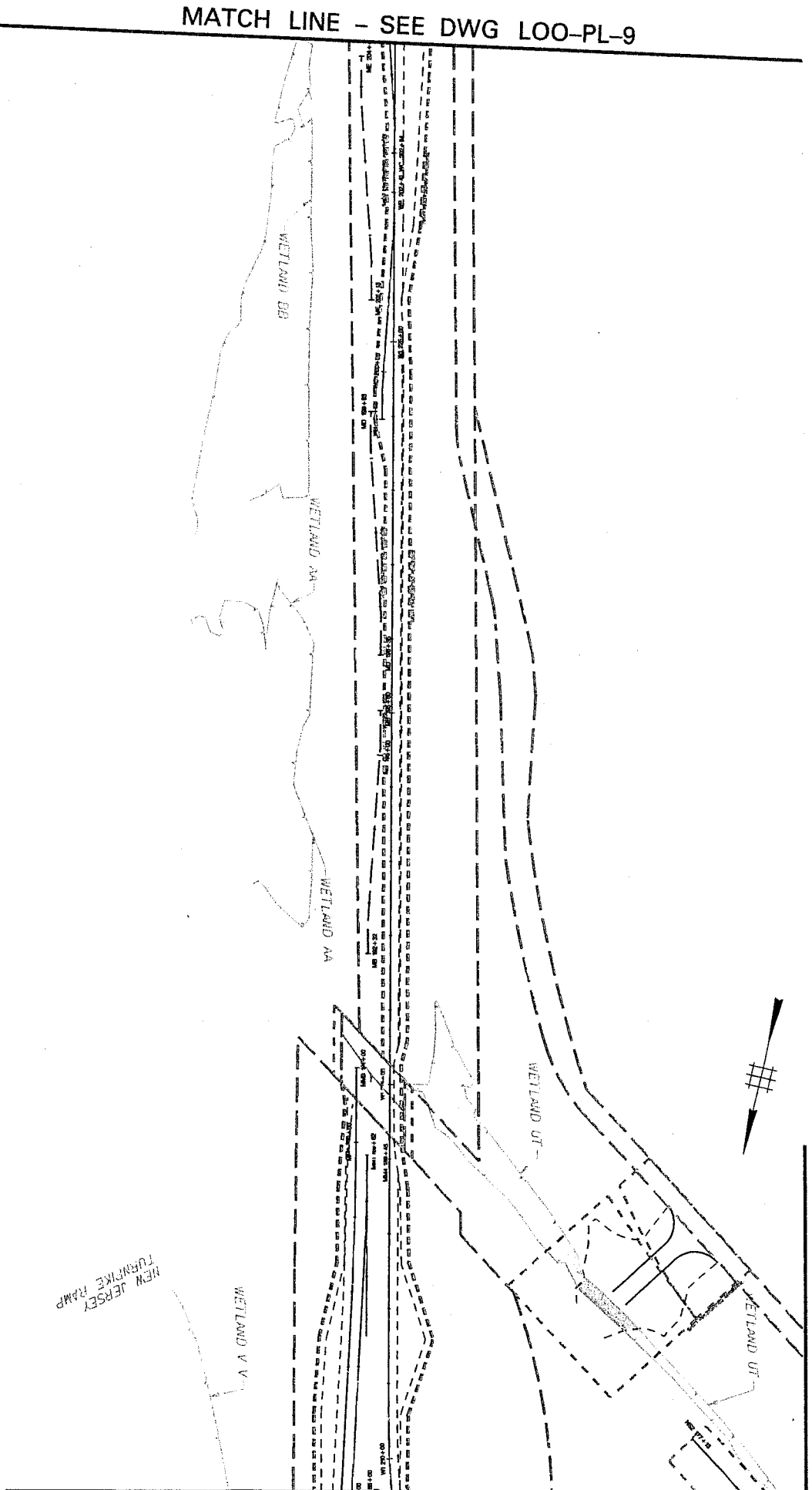
SHEET 9 of 31

**THE PARTNERSHIP**  
A JOINT VENTURE OF  
IN AMERICA INC. & STY'S TEAM LLC

**CERTIFICATE OF AUTHORIZATION** No. 24642796000  
Date: 3-31-09  
**Robert J. Schwade**  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 24603400500



MATCH LINE - SEE DWG LOO-PL-3



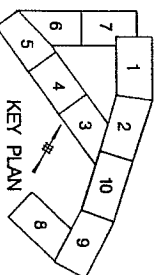
MATCH LINE - SEE DWG LOO-PL-9

MATCH LINE - SEE DWG LOO-PL-2

# LEGEND

- PERMANENT WETLANDS
- TEMPORARY WETLANDS
- SHADED WETLANDS
- PERMANENT OPEN WATERS
- TEMPORARY OPEN WATERS
- SHADED OPEN WATER

- LIMITS OF FILL
- TEMPORARY CONSTRUCTION EASEMENT



SCALE IN FEET  
1" = 200'  
100' 50' 0 100' 200'

SCALE

DAMIAN HARRIS, AECOM  
CERTIFICATE OF AUTHORIZATION No. 246A2798-0000

**THE PARTNERSHIP**  
A JOINT VENTURE OF  
TRANSHUDSON EXPRESS AND THE PORT AUTHORITY OF NY AND NJ



USACE SECTION 10/404 PERMIT

LOOP TRACKS

SHEET 10

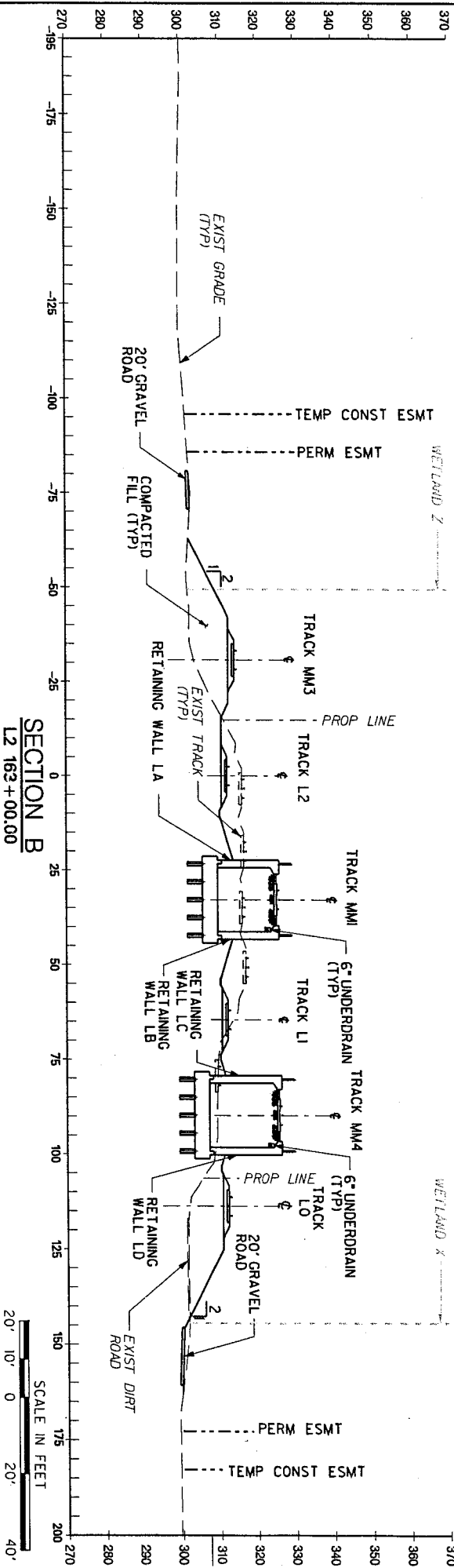
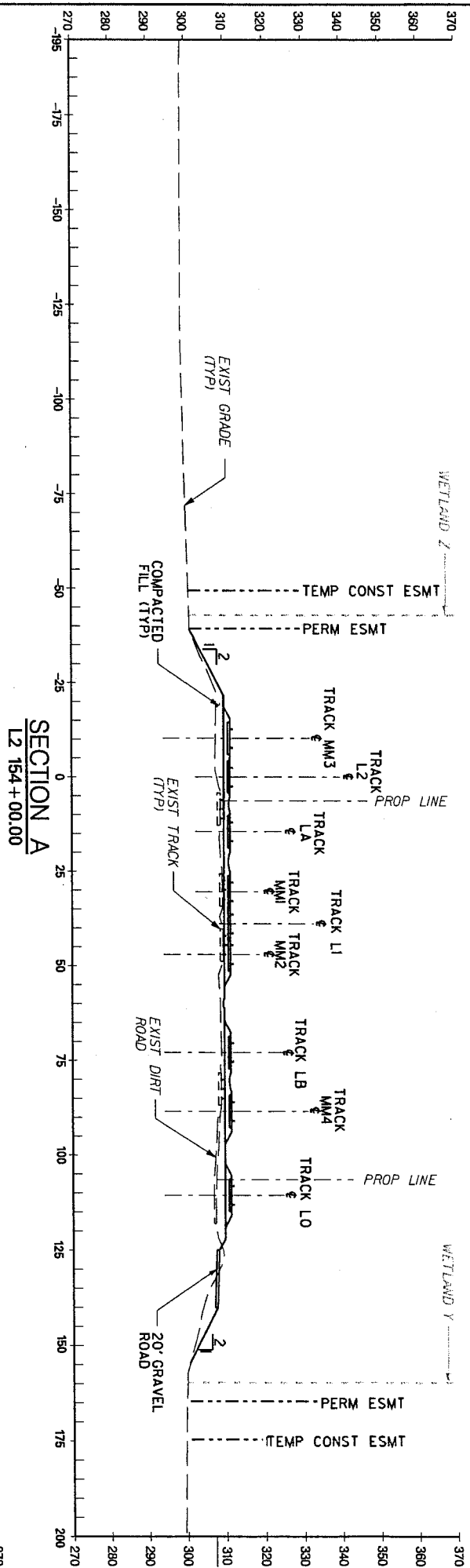
Enrolled of 31

LOO-PL-10

Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 246B03480500

Date: 3-31-09

DATE:  
MARCH, 2009  
DRAWING NO. 1



SECTION B  
L2 163+00.00

SCALE IN FEET  
20' 10' 0' 20' 40'



**ACCESS TO THE REGION'S CORE**  
Trans-Hudson Express (THE Tunnel)  
A Partnership of NJ TRANSIT and the Port Authority of NY & NJ



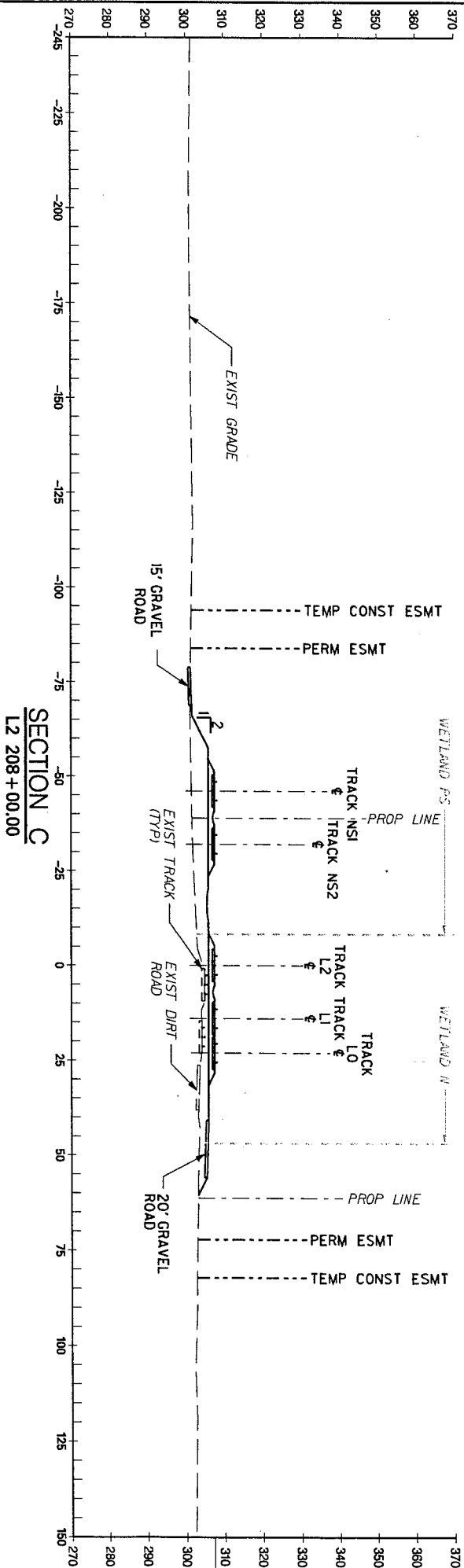
**THE PARTNERSHIP**  
A JOINT VENTURE OF  
THE PORT AUTHORITY OF NY & NJ  
AND THE NEW YORK STATE THRUWAY AUTHORITY

**USACE SECTION 10404 PERMIT**  
**LOOP TRACKS CROSS SECTIONS**

SHEET 1  
FIGURE 1C of 31

**AS SHOWN**  
DATE: MARCH, 2009  
DRAWING NO.: L00-SC-1

**Robert J. Schwade**  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 24020468000  
Date: 3-31-09



SCALE IN FEET  
20' 10' 0 20' 40'

SCALE:

AS SHOWN

DATE:

MARCH, 2009

DRAWING NO.:

L00-SC-2

USACE SECTION 10/404 PERMIT

LOOP TRACKS CROSS SECTION

SHEET 2 (of 3)

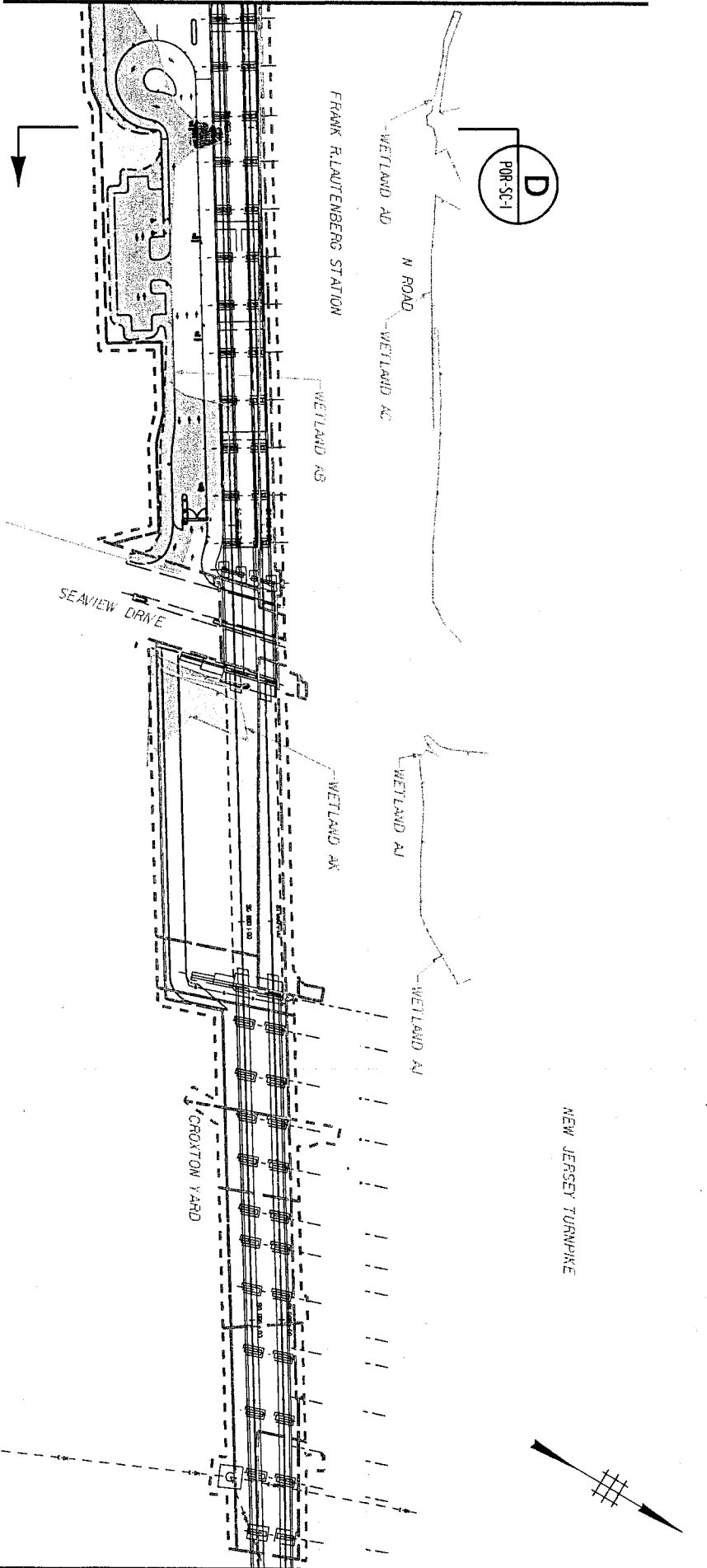
DAN HARRIS, AIA  
CERTIFICATE OF AUTHORIZATION No. 246A2798600

Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
Date: 3-31-09

THE PARTNERSHIP  
A JOINT VENTURE OF  
THE AMERICAN INSTITUTE OF ARCHITECTS  
AND THE AMERICAN SOCIETY OF CIVIL ENGINEERS



MATCH LINE - SEE DWG LOO-PL-7

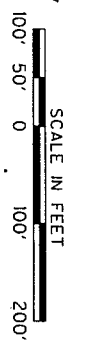
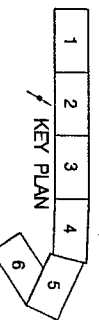


MATCH LINE - SEE DWG POR-PL-2

LEGEND

- PERMANENT WETLANDS
- TEMPORARY WETLANDS
- SHADED WETLANDS
- PERMANENT OPEN WATERS
- TEMPORARY OPEN WATERS
- SHADED OPEN WATER

- LIMITS OF FILL
- TEMPORARY CONSTRUCTION EASEMENT



DINA HARRIS | ARCOM  
CERTIFICATE OF AUTHORIZATION No. 24042796000

*Robert J. Schwade*  
Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 2400348000  
Date: 3-31-09

USAGE SECTION 10404 PERMIT

NU SURFACE ALIGNMENTS

SHEET 1 OF 31

POR-PL-1



ACCESS TO THE REGION'S CORE  
Trans-Hudson Express (THE Tunnel)  
A Partnership of NJ TRANSIT and The Port Authority of NY and NJ

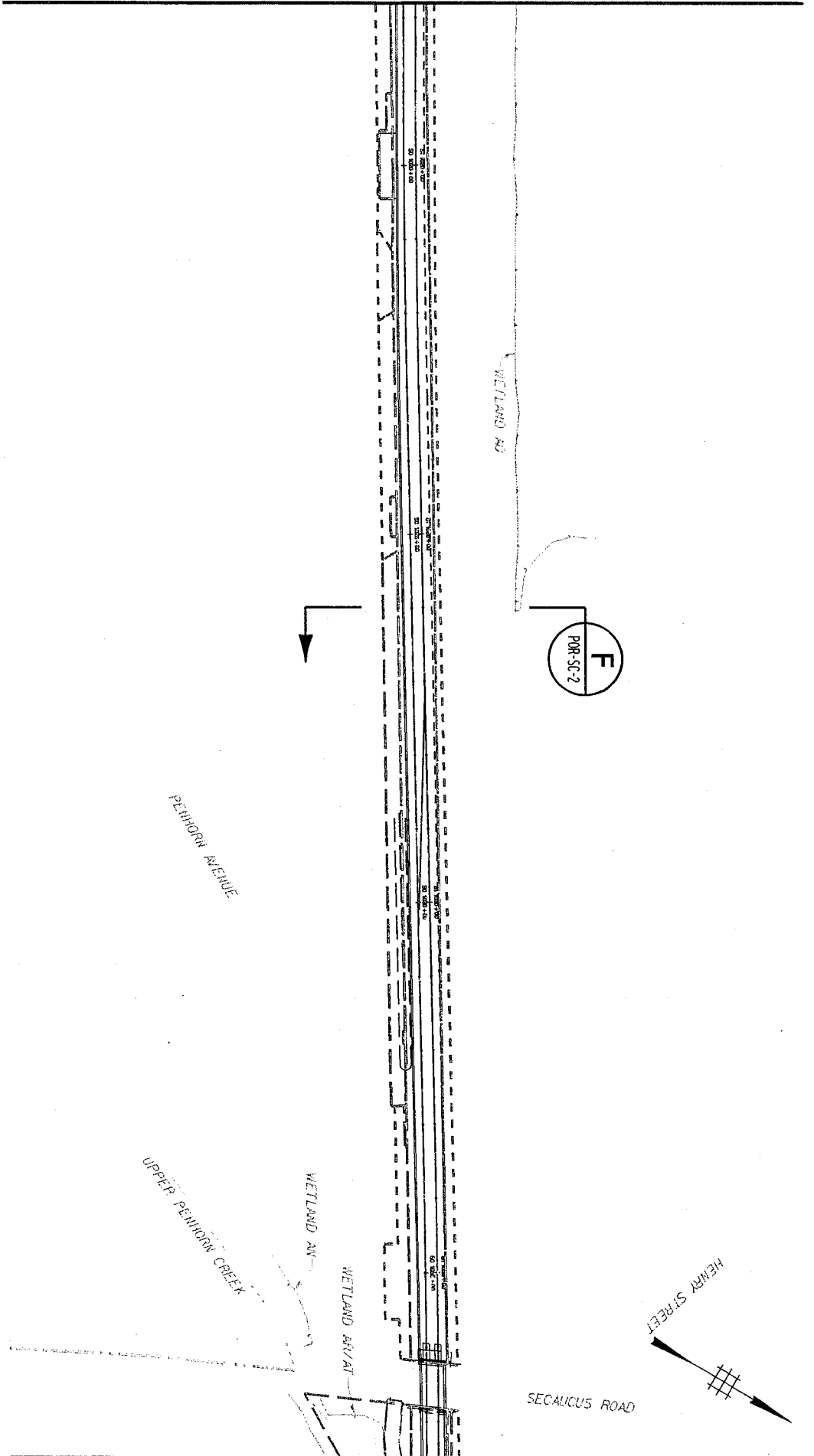


NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 2400348000

DATE: MARCH, 2009  
DRAWING NO.:



MATCH LINE - SEE DWG POR-PL-2

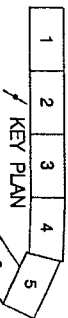


MATCH LINE - SEE DWG POR-PL-4

LEGEND

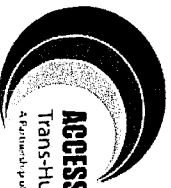
- PERMANENT WETLANDS
- TEMPORARY WETLANDS
- SHADED WETLANDS
- PERMANENT OPEN WATERS
- TEMPORARY OPEN WATERS
- SHADED OPEN WATER

- LIMITS OF FILL
- TEMPORARY CONSTRUCTION EASEMENT



SCALE:

1" = 200'



ACCESS TO THE REGION'S CORE  
Trans-Hudson Express (THE) Tunnel  
A Partnership of NJ TRANSIT and the Port Authority of NY and NJ

THE PARTNERSHIP  
A JOINT VENTURE OF  
THE AMERICAN INSTITUTE OF ARCHITECTS

DMH/HARRIS/LACOM  
CERTIFICATE OF AUTHORIZATION No. 246A27986000

*Robert J. Schwade*  
Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 2401940090

USACE SECTION 10404 PERMIT  
NJ SURFACE ALIGNMENTS

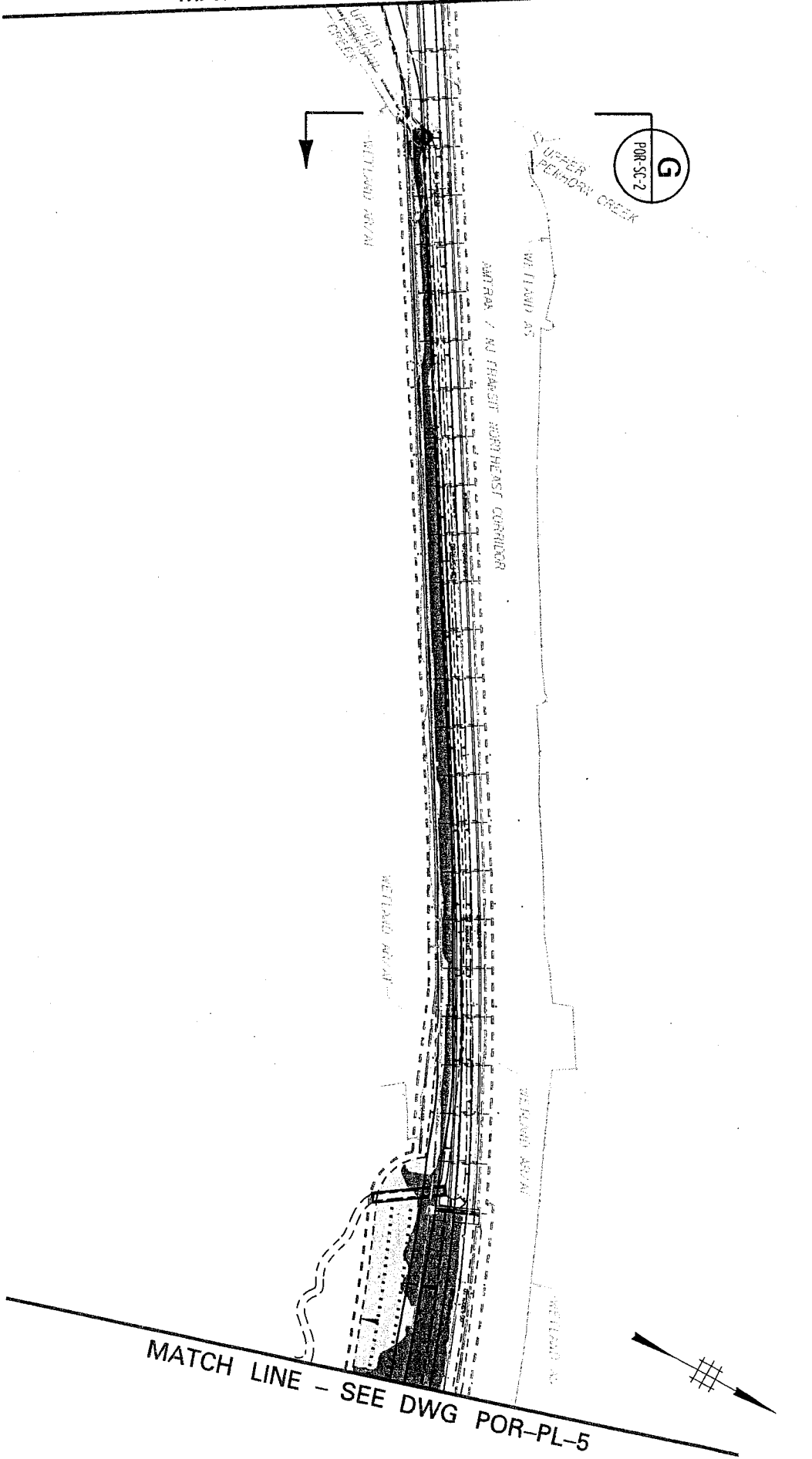
SHEET 3 of 31

POR-PL-3

DATE:  
MARCH, 2009  
DRAWING NO.:



MATCH LINE - SEE DWG POR-PL-3



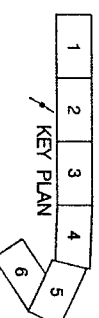
MATCH LINE - SEE DWG POR-PL-5

**LEGEND**

- PERMANENT WETLANDS
- TEMPORARY WETLANDS
- SHADED WETLANDS
- PERMANENT OPEN WATERS
- TEMPORARY OPEN WATERS
- SHADED OPEN WATER

--- LIMITS OF FILL

--- TEMPORARY CONSTRUCTION EASEMENT



**THE PARTNERSHIP**

A JOINT VENTURE OF:  
IN AMERICA, INC. & BAKER HARRIS

CERTIFICATE OF AUTHORIZATION NO. 246A2798000

*Robert J. Schwade*  
Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 24620440500  
Date: 3-31-09

USACE SECTION 10/404 PERMIT

NU SURFACE ALIGNMENTS

SHEET 4 of 31

POR-PL-4



-FOR ENLARGED  
PLAN & PROFILE  
SEE DRAWING  
No. POR-PP-1

...

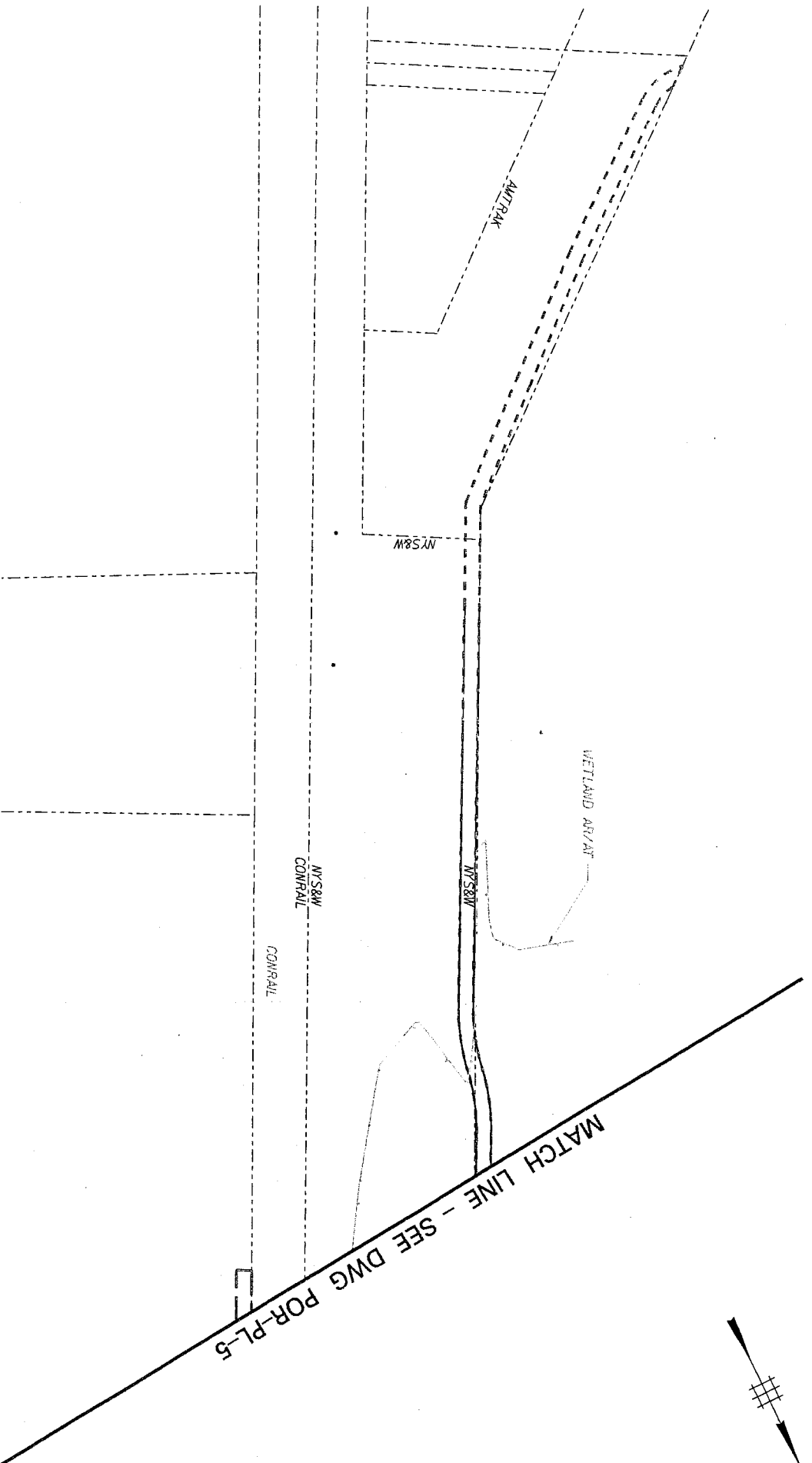
**POR-PL-5**



Date: 3-31-09

**Robert J. Schwade**  
NEW JERSEY PROFESSIONAL ENGINEER

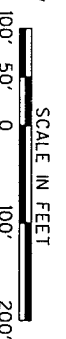
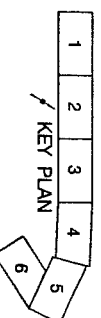
LICENSE NO. 24GF03480500



LEGEND

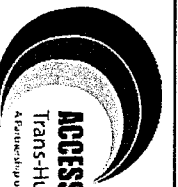
- PERMANENT WETLANDS
- TEMPORARY WETLANDS
- SHADED WETLANDS
- PERMANENT OPEN WATERS
- TEMPORARY OPEN WATERS
- SHADED OPEN WATER

- LIMITS OF FILL
- TEMPORARY CONSTRUCTION EASEMENT



DANIEL HARRIS, LARCOM  
CERTIFICATE OF AUTHORIZATION NO. 246437986000

*Robert J. Schwade*  
Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
Date: 3-31-09



ACCESS TO THE REGION'S CORE  
Trans-Hudson Express (THE) Tunnel  
A Partnership of NJ TRANSIT and the Port Authority of NY & NJ

THE PARTNERSHIP  
A JOINT VENTURE OF  
NJ TRANSIT, INC. AND THE PORT AUTHORITY OF NY & NJ

USACE SECTION 10404 PERMIT

NJ SURFACE ALIGNMENTS

SHEET 6

7

7

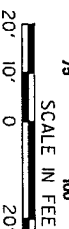
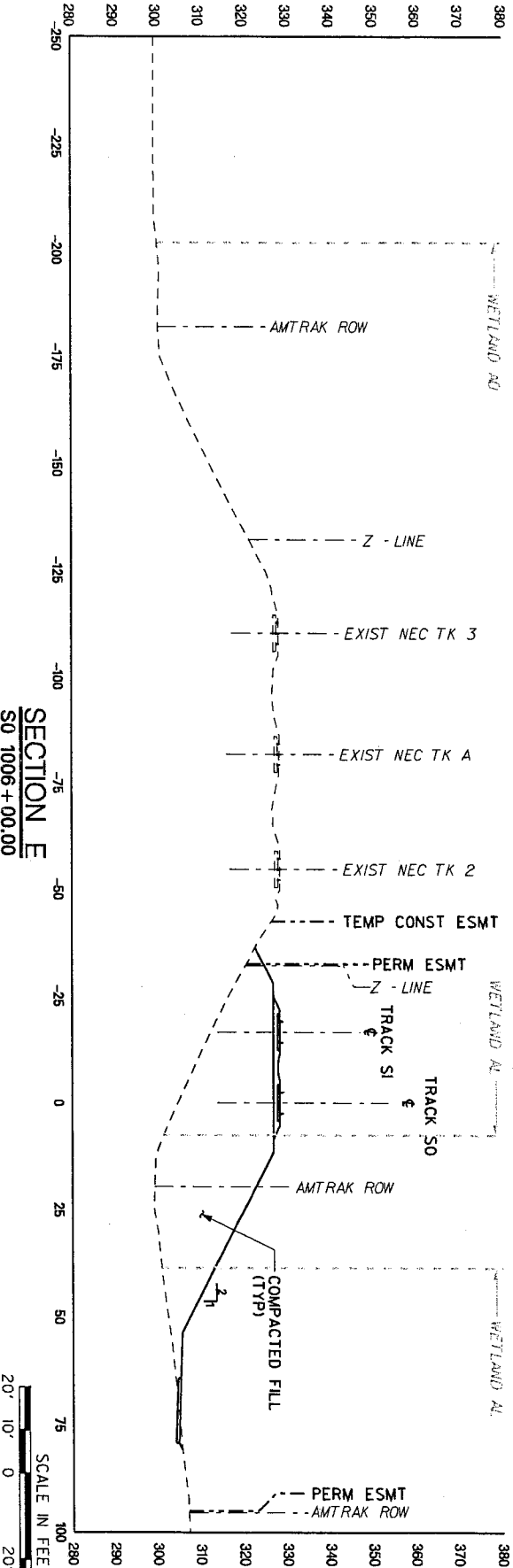
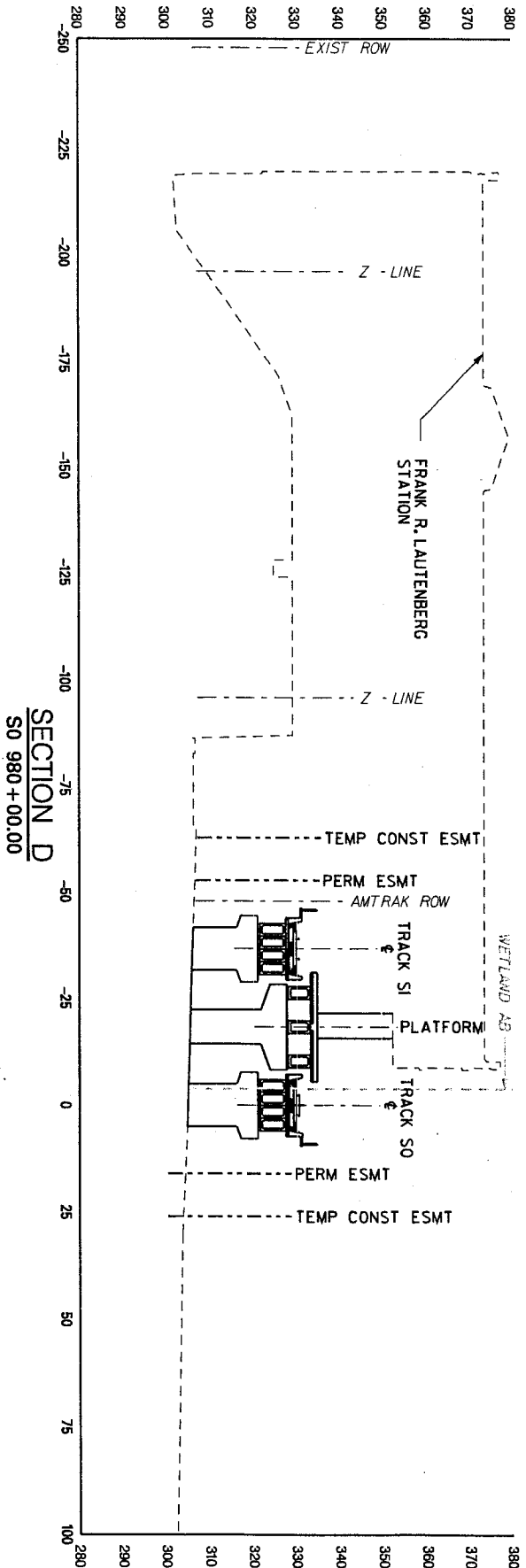
7

7

7

7

SCALE: 1" = 200'  
DATE: MARCH, 2009  
DRAWING NO.: POR-PL-6



SCALE:

AS SHOWN

DATE: MARCH, 2009

DRAWING NO.:

POR-SC-1

USACE SECTION 10404 PERMIT

NJ SURFACE ALIGNMENTS

CROSS SECTIONS

SHEET 1 OF 31

DINA HARRIS, AECOM

CERTIFICATE OF AUTHORIZATION NO. 246A1795600

THE PARTNERSHIP

A JOINT VENTURE OF:

IN AMERICA, INC. AND AECOM

Robert J. Schwade

NEW JERSEY PROFESSIONAL ENGINEER

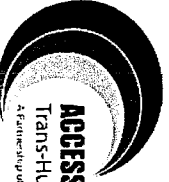
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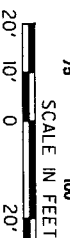
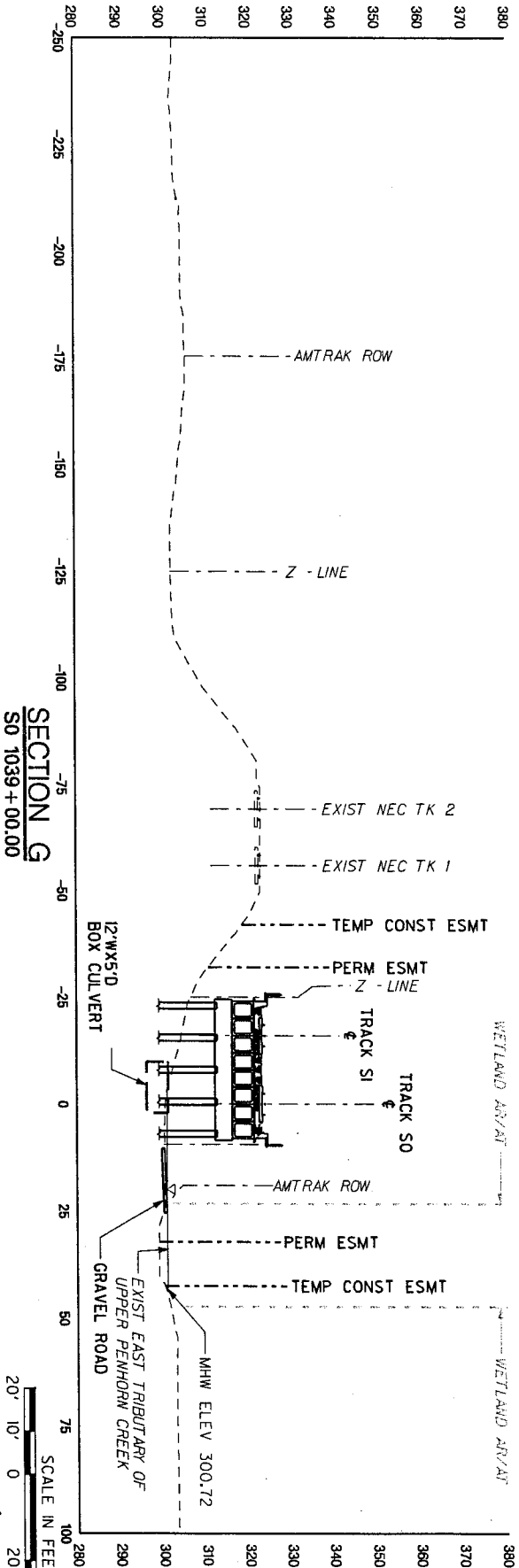
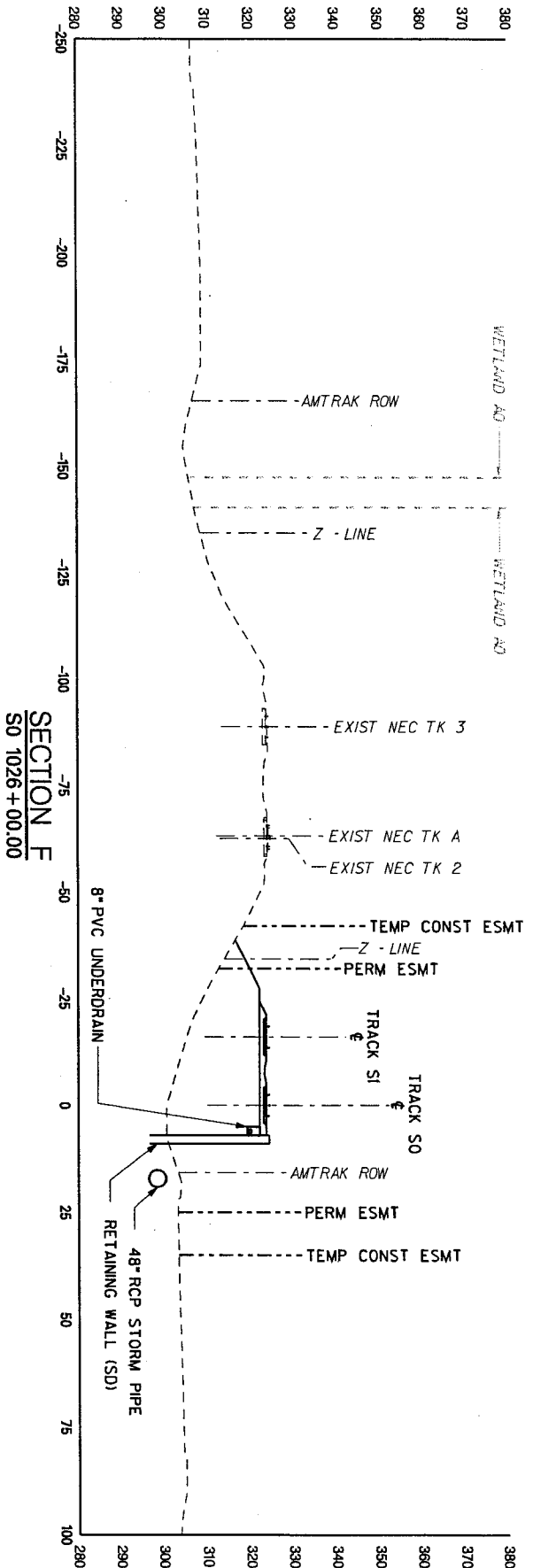
PERMIT NO. 246A1795600

Access to the Regions Core

Trans-Hudson Express (THE) Tunnel

A Partnership of NJ TRANSIT and the Port Authority of NY and NJ





**ACCESS TO THE REGION'S CORE**  
Trans-Hudson Express (THE) Tunnel  
A Partnership of NJ TRANSIT and the Port Authority of NY & NJ

**THE PARTNERSHIP**  
A JOINT VENTURE OF  
NJ TRANSIT AND THE PORT AUTHORITY OF NY & NJ

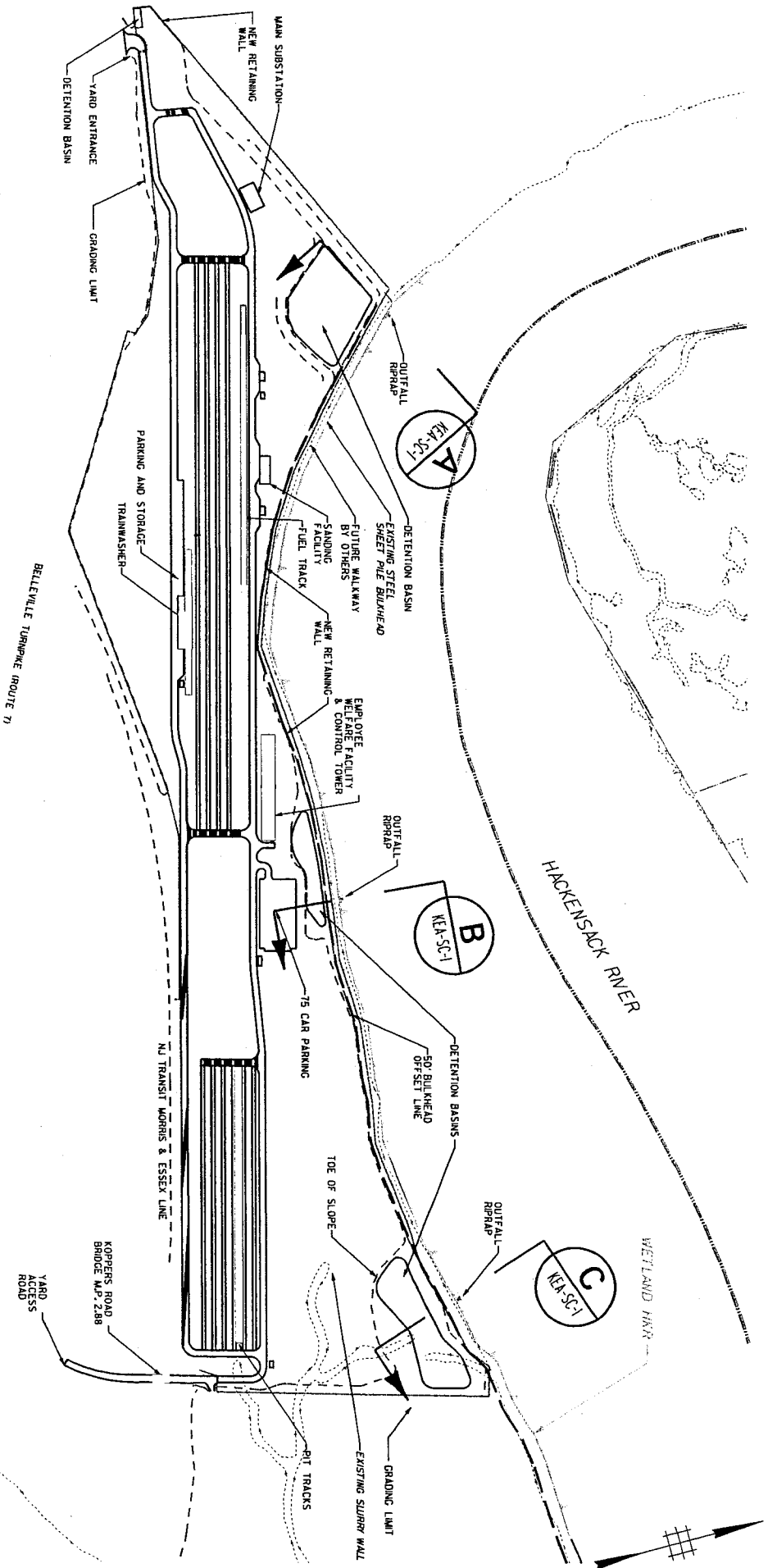
**DRUM HARRIS ASSOC.**  
CERTIFICATE OF AUTHORIZATION NO. 246A2786000  
*Robert J. Schwade*  
Date: 3-31-09  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 24603480500

**USACE SECTION 10404 PERMIT**  
**NJ SURFACE ALIGNMENTS**  
**CROSS SECTIONS**  
SHEET 2

SCALE: AS SHOWN  
DATE: MARCH, 2009  
DRAWING NO.: POR-SC-2

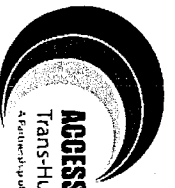
24 of 31





# LEGEND

- PERMANENT WETLANDS
- TEMPORARY WETLANDS
- SHADED WETLANDS
- PERMANENT OPEN WATERS
- TEMPORARY OPEN WATERS
- SHADED OPEN WATER
- LIMITS OF FILL
- TEMPORARY CONSTRUCTION EASEMENT



ACCESS TO THE REGION'S CORE  
Trans-Hudson Express (THE) Tunnel  
A Partnership of NJ TRANSIT and the Port Authority of NY and NJ

**THE PARTNERSHIP**  
A JOINT VENTURE OF  
NJ TRANSIT AND THE PORT AUTHORITY OF NY AND NJ

**DRUM HARRIS, LLC**  
CERTIFICATE OF AUTHORIZATION NO. 24632796600  
*Robert J. Schwade* Date: 3-31-09  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 24632796600

**USACE SECTION 10404 PERMIT**  
**KEARNY YARD**  
GENERAL PLAN  
SCALE: AS SHOWN  
DATE: MARCH, 2009  
DRAWING NO.: KEA-PL-1

10000 26 of 31

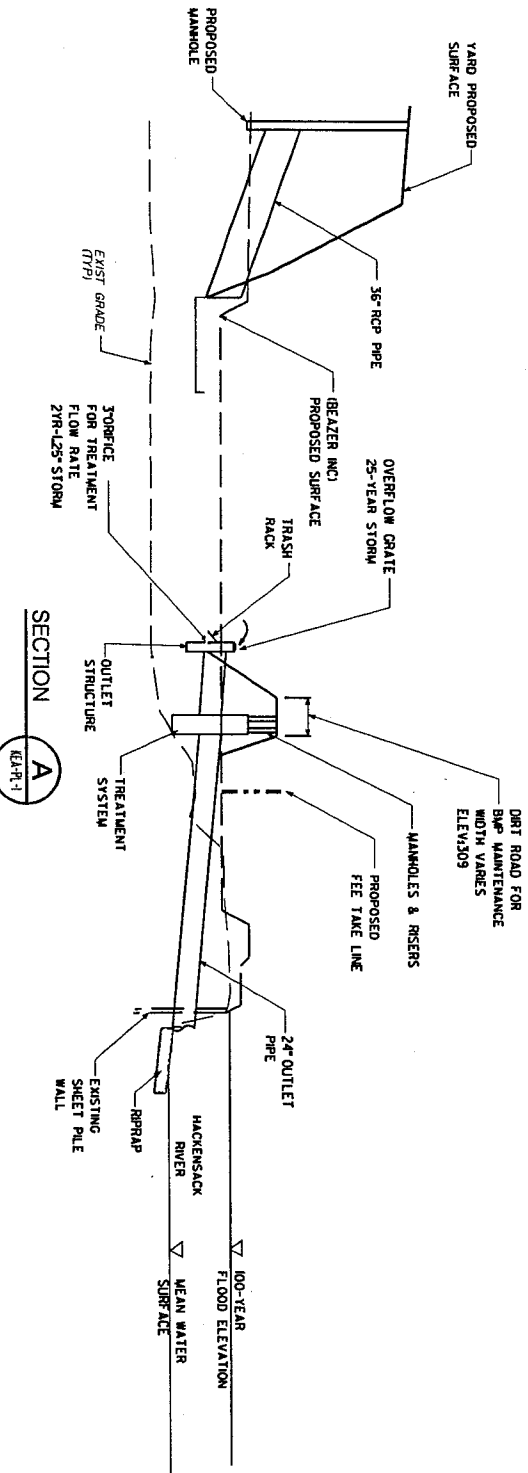
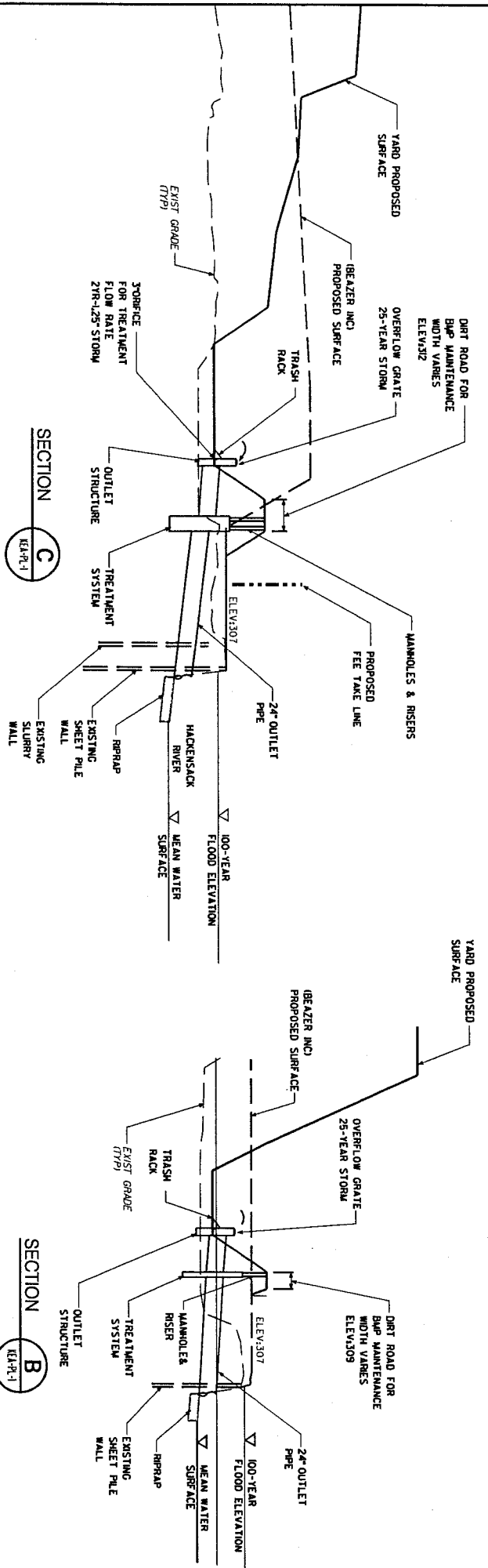


Figure 27 of 31



**ACCESS TO THE REGION'S CORE**  
Trans-Hudson Express (THE) Tunnel  
A Partnership of NJ Transit and the Port Authority of NY & NJ

**THE PARTNERSHIP**  
A JOINT VENTURE OF  
NJ TRANSIT AND THE PORT AUTHORITY OF NY & NJ

DAVID HARRIS, AECOM  
CERTIFICATE OF AUTHORIZATION No. 246A2786500

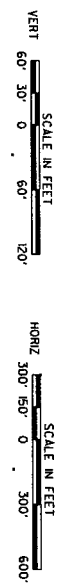
*Robert J. Schwade*  
Robert J. Schwade  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 24003450000

**USAGE SECTION 10/404 PERMIT**

**KEARNY YARD  
GRADING AND DRAINAGE  
TREATMENT BASINS TYPICAL SECTIONS**

SCALE: NTS  
DATE: MARCH, 2009  
DRAWING NO.: KEA-SC-1





SCALE:  
AS SHOWN

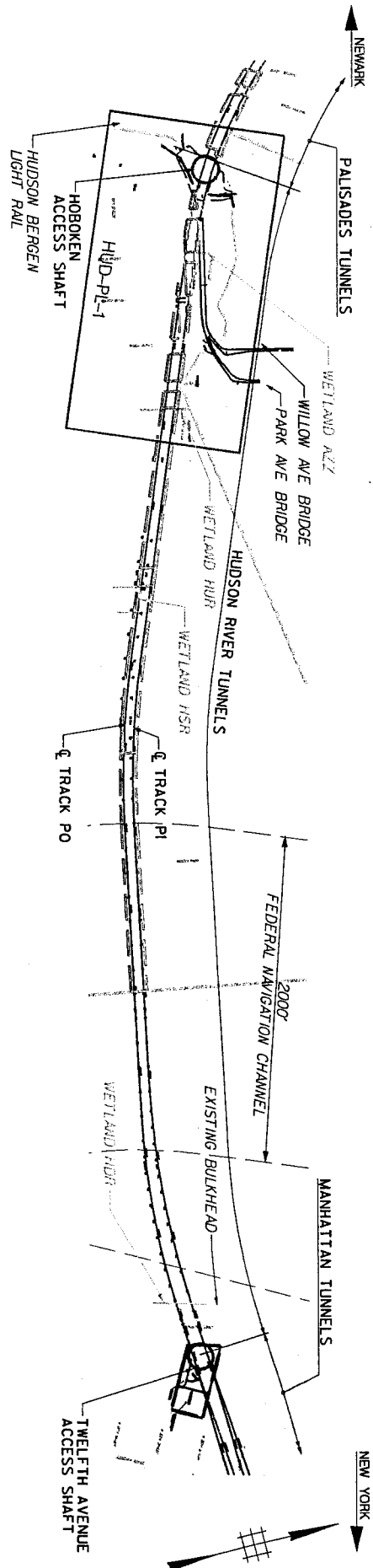
Date: 3-31-09

**NEW JERSEY PROFESSIONAL ENGINEER**  
 LICENSE NO. 247702-1/00050

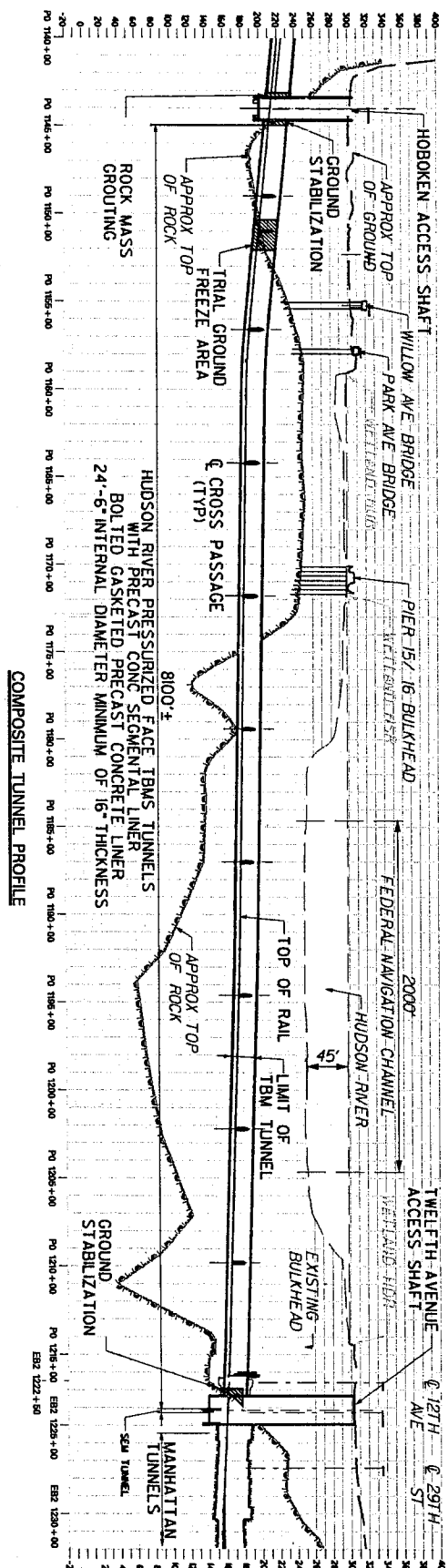
## PALISADES TUNNELS

**PAL-GP-1**





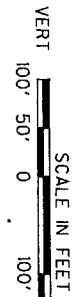
GENERAL KEY PLAN  
N18



COMPOSITE TUNNEL PROFILE

NOTES:

- 1. FEDERAL NAVIGATION CHANNEL OF HUDSON RIVER WITHIN PROJECT AREA IS 2000 FEET WIDE AND 45 FEET IN DEPTH.



**ACCESS TO THE REGION'S CORE**  
Trans-Hudson Express (THE Tunnel)  
A Partnership of NJ TRANSIT and the Port Authority of NY and NJ

**THE PARTNERSHIP**  
A JOINT VENTURE OF  
NJ TRANSIT AND THE PORT AUTHORITY OF NY AND NJ

CERTIFICATE OF AUTHORIZATION No. 240A27986000  
Date: 3-31-09  
**Robert J. Schwade**  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 24003480900

**USACE SECTION 10/404 PERMIT**  
**HUDSON RIVER TUNNELS**  
GENERAL PLAN AND PROFILE

SCALE: AS SHOWN  
DATE: MARCH, 2009  
DRAWING NO.: HUD-KP-1



HUD-PL-1



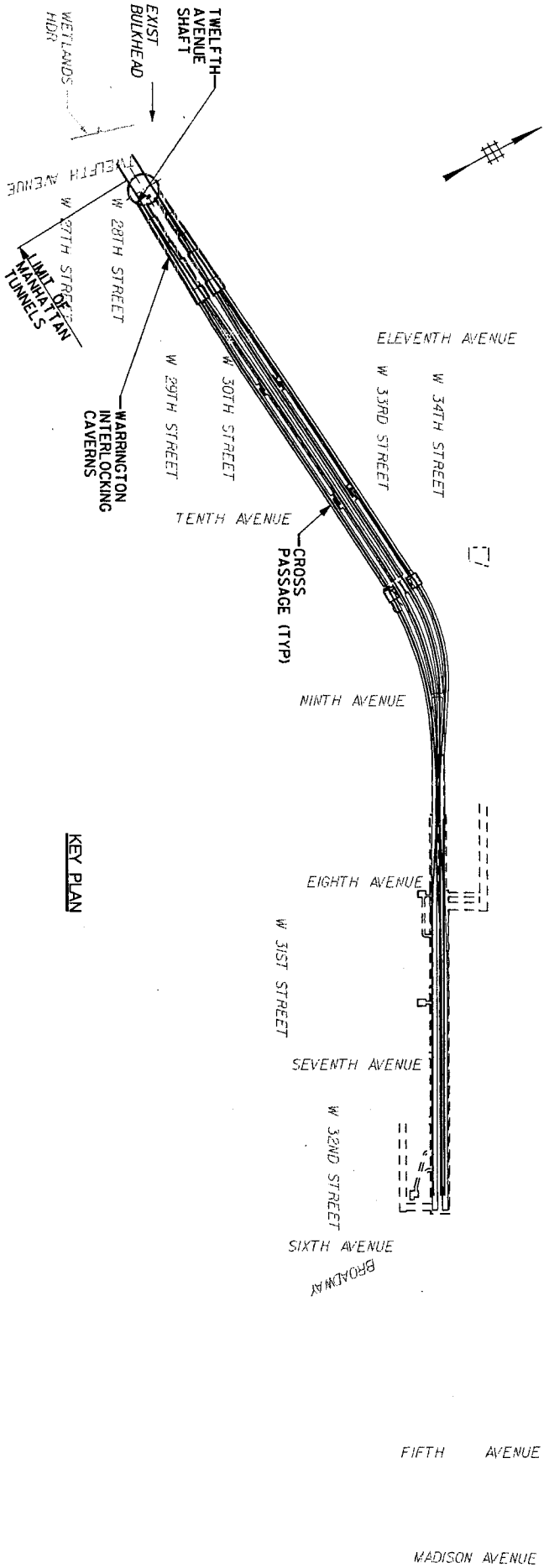
**Trans-Hudson Express (THE) Tunnel**

11

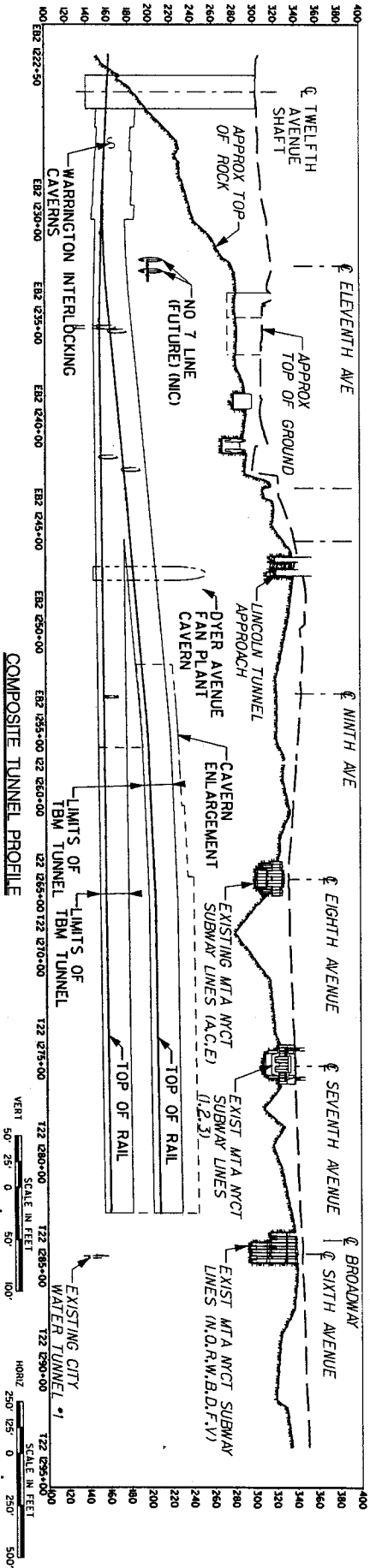
**Robert J. Schwade**  
NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 24GE03480500

NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 24GE03480500

NEW JERSEY PROFESSIONAL ENGINEER  
LICENSE NO. 24GE03480500



KEY PLAN



COMPOSITE TUNNEL PROFILE

DMJM HARRIS JARCOM  
CERTIFICATE OF AUTHORIZATION NO. 246A27566000

THE PARTNERSHIP  
A JOINT VENTURE OF  
THE AMERICAN SOCIETY OF CIVIL ENGINEERS  
AND THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

ACCESS TO THE REGION'S CORE  
Trans-Hudson Express (THE Tunnel)

A Partnership of NJ Transit and the Port Authority of NY & NJ

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MANHATTAN TUNNELS

GENERAL PLAN AND PROFILE

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AS SHOWN

DATE: MARCH, 2009

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